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Social Heredity and Social Evolution

The Other Side of Eugenics

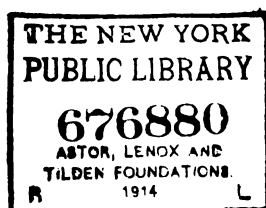
BY
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Evolution, etc.*



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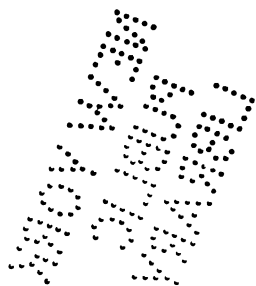


TABLE OF CONTENTS

	PAGE
PREFACE	v
CHAPTER I	
HUMAN AND ANIMAL EVOLUTION CONTRASTED.....	1
The Evolution of Man and Animals Attested by the Same Kind of Evidence. Have Human and Animal Evolution Been Controlled by the Same Laws? Man As an Animal Contrasted with Man As a Social Unit. The Characteristics of Social Man. Social Inheritance. The Scope of the Two Types of Inheritance. Social Attributes Transmitted by Social Heredity.	
CHAPTER II	
THE ORIGIN OF LANGUAGE.....	44
Animal Language. Child Language. Primitive Language. The Nature of Primitive Language. The Development of Language. The Development of Language and Mental Evolution.	
CHAPTER III	
THE EVOLUTION OF MORAL CODES.....	72
The Problem of the Moral Nature. Struggle for the Life of Species. Social Instincts. The Evolution of Codes of Morals.	
CHAPTER IV	
THE EVOLUTION OF THE MORAL SENSE.....	94
The Nature of the Moral Sense. The Moral Sense in the Primitive Family. The Development of the Moral Sense in the Race. The Content of Right and Wrong. The Moral Sense Started as a "Spontaneous Variation." The Moral Sense and Social Heredity.	
CHAPTER V	
THE BEGINNINGS OF SOCIAL EVOLUTION.....	126
The Significance of Social Organization. Family Life among Animals. The Origin of the Human Family. The Conditions of the Primitive Family. The Permanence of the Human Family. The Formation of Societies.	
CHAPTER VI	
THE GROWTH OF DIFFERENT TYPES OF ORGANIZATION.....	153
Organization Centered around Individuals. The Patriarchal System and Its Development. The Communal System. The Aryan Race. Centralization a Source of Weakness.	

TABLE OF CONTENTS

CHAPTER VII		PAGE
✓ THE GENERAL DIRECTION OF PROGRESS.....		178
A Universal Tendency toward Centralization. The Subordination of Self. Centralization Means Loss of Individual Freedom. Exaltation of the Individual. The Individual versus Society. Centralization Not Opposed to Individual Value.		
CHAPTER VIII		
THE FUNDAMENTAL FORCES IN SOCIAL EVOLUTION.....		202
Human Evolution Has Been Mental Rather Than Physical. The Intellectual and Instinctive Natures of Man. The Foundation of Organization. Society Not Founded upon Intelligence. Civilization Founded upon Instinct.		
CHAPTER IX		
EGOISM IN THE HUMAN RACE.....		223
Egoism or Altruism? The Human Struggle for Existence. Struggle with the Lower Animals. Struggle with Inanimate Nature. Struggle of Man with Man. Change of Race Characters. Natural Selection as Affecting Peace-loving Races.		
CHAPTER X		
ALTRUISM.....		247
Animal Instincts. The Ethical Instinct. The Ethical Sense Alone Produces Strong Nations. Altruism versus Egoism. Why Is Civilization Dependent upon Altruism? Social Evolution Founded upon Ethics. The Relation of Religion to the Evolution of Civilization.]		
CHAPTER XI		
SOCIAL EVOLUTION AND SOCIAL HEREDITY.....		279
Summary of Salient Conclusions. Civilization a Purely Artificial Product. Organic and Artificial Characters in Man. Civilization Due to Acquired Characters. Social and Organic Inheritance in Man. General Conclusions, "Social Heredity" and the "Environment."		
CHAPTER XII		
THE LAWS CONTROLLING HUMAN SOCIAL HEREDITY AND EVOLUTION.....		305
The Inheritance of Acquired Characters. Natural Selection No longer the <i>sine qua non</i> of Progress. The Influence of the Individual. Civilization and Intelligence Have Developed Together. How Civilization Develops Intelligence. How Intelligence Develops Civilization. Individual Responsibility. Social Heredity and Language. Social Heredity Leads to Altruism. Final Contrast of Organic and Social Heredity. General Conclusions.		

PREFACE

THE application of the great laws of nature to the explanation of the history of the human race is one of the fascinating phases of science. In the study of the evolutionary processes of the organic world that has followed Darwin it has been generally assumed that the laws which govern the rest of the animal world have also governed the evolution of mankind. That man holds a unique position in nature has been generally recognized; and sometimes this idea has been so prominent in the minds of scientists, as well as other classes of thinkers, as to lead to the assumption that the development of man has been a thing apart from the rest of the living world and due to some special stimulus. Most generally, however, it has been silently assumed that mankind has been developed under the same kind of laws and forces that have been concerned in the formation of the lower orders of nature. One of the more recent phases of this belief has found expression in the great interest taken in the modern study of eugenics; for this school is based upon the laws of inheritance as they have been determined by the study of the lower orders of nature which have then been applied to man.

It is the purpose of this work to show that the laws of the evolution of animals and plants apply to human evolution only up to a certain point, beyond which man has been under the influence of distinct laws of his own. It is our purpose to show that while the human *animal* may doubtless have been

developed under the laws which have brought about the evolution of the rest of the living world, the *human social* unit has been developed under the influence of a new set of forces which have had little or no influence in developing the animal kingdom. In doing this there will be given a sketch of the evolution of what we call civilization, for such a sketch will show us that social evolution has been controlled and guided by a new force which we call *social heredity*, a force which had almost nothing to do with the evolution of the rest of the organic world, and one which acts practically independently of the laws which the eugenists are disclosing to view. It has appeared to the author that, with all the cogency of the facts presented by the eugenists, there is a side of the question of human development which they are overlooking and which their readers are therefore likely to overlook; a side which, in our opinion, weighs more heavily in determining human progress than the laws of inheritance upon which eugenics is based. To present this other side of the case, without endeavoring at all to detract from the value of the agitation for a better inheritance by the best possible control of marriage, is the excuse for the preparation of this book at the present time.

H. W. C.

MIDDLETOWN, CONNECTICUT, June, 1914.

CHAPTER I

HUMAN AND ANIMAL EVOLUTION CONTRASTED

THE EVOLUTION OF MAN AND ANIMALS ATTESTED BY THE SAME KIND OF EVIDENCE

It seems to be quite generally admitted to-day that the human race was the culmination of a long series of evolutionary changes. Whatever may be said of his mental nature, man's body is of the earth earthy and has had a history parallel to that of other animals. The same arguments which have led to the well-nigh universal acceptance of the theory of organic evolution of animals apply with equal cogency to the physical nature of man. The lines of argument which have led to the acceptance of the doctrine of evolution are three: 1. The evidence derived from the study of comparative anatomy. 2. The evidence derived from the study of fossils. 3. The evidence derived from the study of embryology. While many and varied arguments have been brought forth for the theory of genetic descent, they may mostly be centered around these three lines of evidence. Now, these three kinds of evidence apply equally to man and to the lower animals. Man shows exactly the same kind of anatomical similarity to the lower animals that they show to each other, for, anatomically, muscle for muscle, bone for bone, man is built upon the same plan as the ape. Human fossils too, though scanty, clearly tell the same story of a progress from lower forms. Among the few fossil

human skulls that have as yet been found there are several that indicate a being of lower brain capacity than man of to-day; and there are one or two that seem to be so distinctly intermediate between man and the ape that there has been a dispute as to whether they were really men or some especially highly developed ape. Moreover, these human fossils carry the history of man back to a much earlier age than was at one time thought possible, and thus have given a far longer period to human evolution than we formerly supposed. Embryology teaches the same lesson. The human embryo, like that of other animals, passes through a series of stages more or less representing the earlier types of animals in the earth's history. At one period it develops gill slits on the sides of its neck like a fish; at another it possesses a well developed tail; in short, like the embryo of a cat or a dog, it passes through stages that in a measure represent the past history of the animal kingdom.

It has been these lines of argument primarily that have led to the general acceptance of the doctrine of organic evolution. Now, we may perhaps deny their cogency entirely and therefore refuse to accept the theory of evolution in toto; but if we accept them as sufficient to convince us of a general evolutionary history of animals, it is simply mental suicide to refuse to apply them to mankind. Logical thinking forces us either to accept the evolution doctrine as applying to physical man or to deny entirely the truth of any evolutionary history of animals. Since the patient search for evidence during the half century or more since Darwin has convinced thinkers generally of the truth of the

theory of evolution as concerns animals, we are logically forced to admit a similar natural origin of physical man.

Mental Evolution.—The problem of the origin of mental man is not so clearly nor so easily settled. When his mind is taken into consideration, man stands on a pinnacle by himself, so widely separated from lower animals that to some there has seemed to be an impassable gulf between him and the animal world. Various attempts have been made to define this mental distinction between man and animals. Likenesses between them are evident enough. Animals certainly have some powers of thinking; some have a memory and are taught by experience. Their sensations appear to be like those of man; and this is true also of their emotions, for fear, affection, anger, jealousy, love and the like are clearly seen among some of the higher animals. While man alone may be said to reason, still something at least faintly resembling reasoning may be seen among certain animals. Man alone has been said to make and use tools; but monkeys certainly learn to *use* tools, for they sometimes utilize sticks and stones for their own purposes; and it must be remembered that the oldest records of mankind definitely tell of a period in his history when he too simply used the sticks and stones which he found at hand as a first step toward the manufacture of tools for his own definite ends. To be sure, man did not stop at this point, but passed upward to the higher plane of tool making, as well as tool using, and why he did so while animals have not, it will be for us to inquire later. But surely we cannot find any radical separation between man and animals at this point of the use of tools when we find

a monkey using a hook on the end of a stick to pull a desired banana within his reach.

Fundamental Differences Between Man and Animals.—Actual differences of a fundamental character between man and animals are not easy to find, but after extended analysis the fundamental differences appear to be two: 1. Man alone possesses the power of forming *concepts* and using *words*. 2. Man alone possesses a *moral sense*, or *conscience*. Other secondary and subordinate differences may surely be found, but these are radical. No animal forms concepts and gives them names, and none has a moral sense.

Even along these lines some thinkers are telling us that this seeming gap between man and animals may be at least partially bridged. Animals certainly have perceptions—a first step in mental activity. Some animals too have a sort of practical, though vague, classification of perceptions; as, for example, when a dog smells an object and at once recognizes it as belonging to one of the two classes “good to eat” and “not good to eat.” This is a step toward a conception and only needs to be named to become full concept. A water bird acts quite differently in alighting upon the water and on the land, thus showing a practical recognition of the difference between solids and liquids. In this the bird’s mind certainly resembles that of the child when, long before he knows the difference between the words “hard” and “soft,” he jumps quite differently when he is to land on a hard floor or a soft cushion. The recognition of such a practical classification is surely a step toward their clear conception, and certainly in this respect the animal may stand on a par with the

young child. The child, however, goes on to higher thinking, while the animal stops here, and the real question is, therefore, why the animal stops and the child goes on. The illustration will serve, however, to show how it may be claimed that even in the line of forming concepts man differs from the higher animals in degree only.

Along the line of the moral sense, or conscience, a somewhat similar reasoning has been used. It has hardly been claimed by anyone that any animal has a moral sense. No one has ever suggested sending missionaries to the animals in the jungle. But it is pointed out that many animals have impulses that are imperative, urging them into definite courses of action which are for the benefit of the species but may be fatal to the individual. The salmon is impelled by an irresistible impulse to ascend the rivers at the time of spawning. That this is for the benefit of the species is probable, but it certainly results in the death of the individuals by millions. A tiger will sacrifice her life for her young. In these actions there are certainly points of resemblance to the action of a martyr who sacrifices his life for a principle, and this latter action we call moral.

Thus it appears that doubts have arisen whether there are any real lines that can be drawn between man and animals which do not disappear upon careful study. That there is a vast difference, however, is perfectly apparent, and this difference must be found along the lines pointed out, that is, in the formation of language and concepts, and in the development of the moral sense and the consequences that have resulted from it.

To these differences it may be perhaps possible to

add a third in the fact that man alone universally develops *societies* and *government*. It is true that societies are not wanting among lower animals, and some sort of government occasionally appears. But these are commonly based upon a somewhat different principle from those of mankind. This point we will not dwell upon here, for it is the primary topic for discussion in this whole work, and will be extensively developed in later chapters.

Natural Forces Sufficient to Explain Natural Phenomena.—

The acceptance of the reality of a natural origin of the human race by evolution thus comes to rest upon exactly the same basis as that of the rest of the animal kingdom, and it stands and falls with the general theory of evolution. Now, no thinker can fail to realize that the evolutionary theory has received its almost universal acceptance from two general lines of reasoning. The first is the direct evidence derived from the collection of facts such as above mentioned. The second is a broader one and lies in the fact that this conception falls into line with the general tendency of thought. For centuries science and philosophy have been endeavoring to group the facts of nature under the influence of definite forces acting by definite laws. As we have studied more and more deeply into nature we have found ourselves able to remove from the realm of miracle one after another of the former mysteries of nature and put them in their place as due to known forces acting by known laws. Step by step has this comprehension of nature advanced as astronomy, chemistry, physics, geology have been subjected to more and more rigid scrutiny, and every step taken has been leading in one general direction.

It has become more and more evident with each decade that nature's forces are sufficient to account for all natural phenomena, and that these forces act according to definite methods which we call laws. As one after another of the previously mysterious phenomena have been thus brought within our comprehension it has been more and more certain that all of nature's phenomena will in time be explained by natural forces. Further, it has been more and more clearly seen that nature's processes are regular, though they may be slow. The "cataclysms" of earlier science have been forgotten, and in their place we have found constant but persistent forces, slowly but continuously producing the series of changes by which the world has been built. The great Colorado cañon was cut out slowly by the same forces that are digging channels for the tiny rivulets by the roadside; and in the same way the other great wonders of nature have been the result of the slow but persistent and ever-present forces of nature.

Now, it is evident that this line of thought, after it has comprehended the processes by which all other forms of life have been developed, must in time inevitably extend to the origin of man. Just as rapidly as the thought of the day becomes accustomed to this conception of the method of nature's action, just so rapidly does it adopt the only view of the origin of the human race that is consistent with this conception. It is thus a general realization of the *uniformity of law* that has brought about the general willingness to accept a belief in a natural origin of the human race, a belief which is to-day very general not only among scientists but even

among theologians—a class of thinkers at first much opposed to such a doctrine.

HAVE HUMAN AND ANIMAL EVOLUTION BEEN CONTROLLED BY THE SAME LAWS?

In all this line of reasoning there has been a tacit assumption that human and animal evolution have been controlled by the same laws, and therefore that the conclusions reached concerning the development of animals may be legitimately applied to the development of the human race. This conclusion is a natural one, and is surely correct up to a certain point. A human animal was doubtless produced by the same laws that were concerned in the production of a horse or an ape. But the human race is something more than a collection of human animals. Human evolution has progressed along wholly new lines, and has produced a result so different from anything found elsewhere in the organic world as to have led some to insist that mankind belongs to a kingdom by himself distinct from plants and animals both. Now, while no modern biologist will hold such an extreme position as this, none can fail to realize that evolution in the human race has produced unique results. Whereas every other animal may be regarded simply as an incident in an evolutionary progress, each appearing and then disappearing without leaving a trace of itself behind, unless perchance it became a fossil, mankind is taking possession of the whole world, is exterminating all forms of life except those that contribute to his comfort and happiness, and, though he leaves few fossils, is leaving behind himself traces which are changing the whole face of nature. His evolution

cannot, from the standpoints of its results, be compared with that of any other animal. It may well, therefore, be possible that his evolution may have been brought about by new forces and controlled by new laws, so that the conclusions drawn from the study of animals may not be legitimate, or at least not adequate, when applied to man.

The organic evolution of animals and plants in general has been brought about by the action of three great factors, namely, *reproduction*, *variation*, and *heredity*. It has been the task of the last half century to work out the laws by which these factors have brought about the history of the living world which we have called organic evolution. It was Darwin who first set us thinking about this subject. In the years that have passed since Darwin, new data have forced upon us a considerable modification of the views advanced first by him. These years have disclosed many details of the method of action of these forces in producing evolution, and while to-day we cannot pretend that we understand the process fully, we certainly have an approximate idea as to how these three forces have interacted with each other to produce the living world of to-day. In applying these principles to man it has been assumed that the laws discovered for animals apply also to man. Unquestionably they do up to a certain point. But since the human race is more than a simple animal, it is possible that its unique attributes may have been developed under a different set of forces.

Heredity.—Whatever may have been the details of the method by which organic evolution has been brought about, there is no question that the primary

factor has been the repetition in the offspring of the characteristics of the parents, a phenomenon that we call heredity. This has so clearly been the fundamental force as to have led to most extended studies aimed at solving the method of its action. Darwin tried to form an idea of its mechanism, but with little success. Various others have attempted the same thing with equal lack of success, until the simple suggestion of Weismann, about thirty years ago, placed it in an entirely new light. His conception of a continuous germinal substance so clearly fulfilled the requirements as to place Weismann's explanation of heredity beyond the class of mere theories and to put it among the accepted truths of science. With increasing interest and avidity as newly discovered facts began to disclose fundamental laws, has the subject of heredity been studied for three decades. Out of the accumulated facts some clearly definite results have already been reached.

1. It has been quite firmly demonstrated that the class of characters which we commonly call *acquired* are not passed on to the offspring by inheritance. Animals may transmit to their offspring those traits that they themselves have inherited, but they cannot transmit those characters that they have developed in themselves as the result of their own actions, or as the result of the action of their environment upon them. It has been difficult to make us willing to accept this conclusion; for we have generally been unwilling to believe that our own actions cannot in any degree affect the characteristics that we transmit to our children. But the accumulating evidence has finally forced us to give up the cherished belief in the inheritance of acquired characters. 2. The

modern study of heredity has disclosed the fact that there is a noticeable permanency in the nature of inherited traits. It has shown how definite characteristics are handed on from parent to child generation after generation, showing in each successive generation the same characters as at the start. It has told us that such traits may seem to disappear entirely in one or more generations to reappear later unchanged in some subsequent generation. 3. Modern study has even shown something of the laws by which different characteristics, *dominant* or *recessive*, as we call them, are transmitted to posterity, and has particularly emphasized the idea that such characteristics, in some cases, remain as distinct as at the start in spite of crossbreeding. Inheritance has been thus shown to be a very definite thing, far more fixed in the race than we formerly believed. We have learned that desirable traits cannot be brought into inheritance or forced out by any kind of training, for inherited traits are fixed. All this emphasizes the fact that to produce a good race of offspring "*nature*, and not *nurture*," must be appealed to as the dominant force.

In all this, again, we find that it is assumed that the laws that control animal inheritance apply equally to man; and again we say that this is doubtless true up to a certain point. Doubtless the human animal was the result of the same kind of laws of reproduction and heredity that have guided the evolution of the animal kingdom. Out of this conception has emerged the interest that has appeared in the modern study of *eugenics*. A couple of generations ago it was possible to teach that a child's education should begin "a hundred years before he is

born," for we could then believe that the education of the parents actually affected the characters which they transmitted to their offspring. But with the new knowledge of heredity such a belief is no longer possible, since education is nothing but a series of acquired characters and hence not transmitted by inheritance. The education of the parents has no effect upon the inherited traits of the children. If, then, neither environment nor training can affect inheritance there seems to be left as a means of improving the coming generations no method except improving the inheritance by guiding in some way the mating of individuals, so that only those with the better lines of inheritance shall be allowed to propagate the race. This feeling has brought to the front the modern interest in eugenics which tries to improve the race by some kind of control of the matings of mankind which shall breed a race of men as perfect as our breeders have produced in their high-bred horses.

Eugenics.—The teaching of eugenics leads to two unfortunate results. The first is a feeling of hopelessness and pessimism. As long as it was possible to believe that the inheritance which we transmit to our offspring might be modified by our own actions, it was possible to see a hope in the future. If the race can be permanently modified by the training that may be given to individuals, progress is inevitable. But if we are forced to believe that by nothing that we do can we influence the inheritance which we hand down to our children, we are landed almost in despair. By this new view of heredity we learn that the inheritance which we are to transmit into our offspring is fixed when we select our husband or wife,

and that nothing that we may do subsequently can possibly modify it. There seems little hope for the future with such a view, for we cannot believe that even the most extended discussion will have any material effect upon the mating habits of mankind. The choice of husband and wife is bound up in the complex social conditions in such a way that it is determined by an indefinite number of artificial factors of which physical fitness hardly plays even a minor part. It is not possible to expect that marriages will be determined by fitness, nor that human breeding will ever be controlled as is the breeding of domestic animals. It is probably not desirable that it should be. But, remembering the inexorable laws of inheritance, there seems to be no hope for the future except by controlling marriages, and the manifest impossibility of this leaves us helpless and despondent. Marriages will continue to be determined by passion and accident rather than by fitness.

The second unfortunate tendency of the emphasis placed upon eugenics is that it inevitably makes us neglect certain other phases of the inheritance question which in reality have had great influence upon the evolution of mankind. Reference is here made to phenomena which in the subsequent pages of this work are together called social heredity. Since a discussion of this topic is to follow, no further reference need be made to it here.

Eugenics and Disease.—In our reference to eugenics in this discussion in this work it must be clearly understood that we take into consideration only those phases of the subject that have to do with heredity in the strict sense of that term, and not certain other matters that are frequently considered with

it. In the discussion of eugenics in the public press reference is most commonly made to the sad and terrible story of the ravages played upon the race by the sexual diseases which are undoubtedly transmitted from parent to child. The actual attempts made by certain States to regulate marriage by requiring medical certificates of fitness of the contracting parties have reference largely to the question of the presence of the venereal diseases. Nothing is more certain than the disasters that follow in the train of these diseases, and no attempt should be spared to eradicate them by controlling marriage if this is possible. But to make our discussion clear it must be definitely understood that these diseases are not inherited in the same sense that we inherit the color of our eyes and other features of our bodies. It is true that they are passed from parent to child, but not by organic inheritance. They are contagious diseases, and the child does not inherit them, but, rather, "catches" them from its parents. They are due to perfectly well-known microorganisms which lodge in the reproductive organs and may pass bodily from the parent to the child by simple contact. When one child acquires measles from another we never think of saying that he inherits it from his sick friend. In the same way if the parent has contracted one of these loathsome diseases, the child may be directly infected with the disease organisms at birth, or even before birth, but does not in the true sense inherit the disease. We must clearly recognize that by true organic inheritance reference is made only to such characteristics as have been incorporated into the germinal matter in the egg or sperm and not to any extraneous para-

sites which may, either early or late, attack the individual that grows from the egg. We can only say that such diseases are inherited by using the term "inheritance" with a totally different meaning from that which we have been accustomed to give it since Weismann led us to a conception of the subject, using the term, indeed, in much the same way as we shall use it presently under the designation of social heredity. That type of heredity that denies the transmission of acquired characters, which tells us that characters are so firmly fixed generation after generation, and which has been the foundation upon which organic evolution has been builded, is a totally distinct phenomenon from the transmission from parent to child of the germ parasites of the venereal diseases. If syphilis can actually affect the germinal substance so that its effects are produced in the following generation through that germinal substance, we might then call it inherited; but so long as the child simply becomes inoculated by the germs which are present in the parent it is not true inheritance.

One other misunderstanding must also be guarded against. There are certain substances which act as poisons upon the individual and also upon the germinal substances which the individual carries in his body. These may produce an effect upon the first individual acted upon by them and also upon subsequent generations because they directly poison the germinal substance. For this reason they are called *racial poisons*. The poisonous action of alcohol and of the syphilitic poison are the best-known examples, for these disastrous substances directly poison the germinal substance, so that subsequent generations

perhaps weak and abnormal
not inherit the special effects of
the parents. They are instances
and not of direct inheritance.

In our discussion of eugenics
only to the characters that are
germinal inheritance, and this of
venereal diseases. In all our references
we have in mind only the inheritance
healthy individuals and not the inheritance
ease either physical or mental. Types
of inheritance stand in a class by
cannot properly be considered as inheritance
in the same sense as are the characters
that the child receives from its parents.

The conclusions of eugenics are based
assumption that mankind is controlled by
laws as the rest of the organic world.
must be pointed out that man stands in a
position. The human animal may be
the same laws of heredity as other
human being is more ⁴¹

so sharply in contrast to other animals are under the influence of a different set of laws. If so, these conclusions of helplessness which come from the eugenics may not be well founded.

MAN AS AN ANIMAL CONTRASTED WITH MAN AS A SOCIAL UNIT

In man there are two more or less distinct natures. These we may perhaps best understand under the terms of his animal and his social nature. By the former he possesses his body with its bones and muscles, its brain and sense organs, its instincts and mental powers. By the latter he has those attributes that make him a social unit. His animal nature makes him an animal much like others, but it is the other side of his nature that makes him a *man* in the unique sense in which that term is commonly used when contrasted with animal. While it is true that his evolution as an animal may have been controlled by the same laws as those that have produced the evolution of the rest of the animal world, this does not necessarily apply to his evolution as a social individual, since this particular development has been a unique one. It is one purpose of this work to show that this social evolution has not been controlled by the same laws that have dominated organic evolution in general.

The contrast between the animal man and the social man is an extraordinary one, but one which science rarely take the pains to draw. Man the animal, except as concerns his brain and brain power, does not by any means stand at the summit of the animal kingdom. Many animals excel him in strength, in agility, in ability to defend themselves

or to master enemies. He is poorly protected from the weather, for his skin is naked; his powers of flight are feeble compared with many other animals; his body, seemingly built for an arboreal life, is poorly adapted to life on the ground, and the upright position he has assumed entails many points of weakness. His senses are not so keen as those of some animals. His children are weak and helpless for a longer period than any other animal. Thus in many respects he is not particularly well built as an animal, and other lower animals are in these points his superior.

But when we turn to the question of man as a social unit we find a very different story, since no animal is his equal in any one of the above mentioned respects. No animal compares with him in strength when he uses the machines that he makes; no animal is so well protected from the weather as he is with his artificial clothing, his houses, and his fires; no animal can see as far as his telescope or so minutely as his microscope, nor can any hear as far as his telephone, and none can compare with him in the ability to rear and maintain his offspring on the earth. In every and all respects he is the superior of animals when the totality of human life is considered, but he is superior not from his powers as an animal but from the powers given him by society.

After all, it is civilization that makes the man, and not his bones, muscles, nor even his mental attributes. Of course intelligence is a fundamental factor, since without it civilization could not have developed. But it is really the powers that come from society that put man upon a plane so much above animals. Perhaps this may be best realized

if we try to compare that which might be accomplished by an exceptionally intelligent savage with that which lies within reach of an intelligent member of a civilized nation. The former can accomplish little or nothing of lasting moment. All that lies within the reach of the highest intelligence among savages is the possibility of controlling for a few years the actions of a small body of fighters. After his death, and frequently long before it, his influence ceases entirely, and the life he has lived has had hardly more lasting influence than that of the buffalo he has slain. Contrast this with the power and influence of a ruler of a civilization. He may direct the activities of millions, may turn the tide of civilization into new channels, and his influence, instead of ending with his death, may go on with ever-increasing force. The influence of the life of Lincoln is greater to-day than ever, but the influence of Sitting Bull ended long before he died. Now, it may be possible that the intelligence of the ruler of a civilized nation is higher than that of the savage chief, though there are good reasons for doubting this conclusion, but it is very manifest that the difference in mental attainments did not explain the difference between the achievements of Lincoln and Sitting Bull. Whether the German Kaiser, when, a few years ago, he decided to demand indemnity for a few missionaries killed in China, acted with more intelligence than an Indian chieftain did when planning an Indian raid, may well be doubted, and is, indeed, of no special concern, for it is perfectly evident that the results were not commensurate with any intellectual differences between the two men. The action of the one, by starting events, finally

waked up sleeping China and altered the history of the world, while the raid planned by the other was forgotten almost as soon as it was over. The reason for the difference was that civilization had placed in the hands of the one immense forces to be wielded, while the other had little at his command beyond his own individual power. The one by means of the forces placed in his hands by society turned the destiny of the world; the other had an influence that hardly extended beyond his own vision, because the society in which he lived could not give him such powers. A man standing alone is a feeble individual. Imagine the most intellectually endowed individual brought up without any contact with his fellow men. His life would be merely an existence, and at its close it would have meant no more than the life of an ape. But that same man placed in a community with other men, by utilizing their combined powers, may do a work that will live for all time. Man thus owes his powers not to what he himself possesses, but, rather, to the fact that he lives in such relations to others that the united accomplishment of all may be relied upon to accomplish any work that promises mutual utility.

By this time the contrast that we wish to draw will be evident. Man shares with the rest of the animal kingdom certain characteristics. These include his physical nature, a body made of a series of organs similar to those which are possessed by his close allies among the lower animals. They include, too, whatever of instinct he may possess; for while instincts do not play a very large part in human life, they are not wanting. With animals too man shares a brain, and his brain is closely similar to that of

some of the higher animals. Mental powers too he shares with them; although manifestly they are more developed and upon a higher plane, since his mind is capable of much that is quite beyond the capacity of other animals. Concerning all these animal characteristics, the logic of the argument that human evolution has been controlled by the same law as that of animals is irrefutable. Since man is so closely like other animals, all of the arguments which apply to the organic nature in general apply also to him, and logical consistency forces us to recognize the origin of this being as the result of the same forces that have produced other species.

But there is the second phase of human life which, more than his animal nature, constitutes the real nature of mankind, and this consists not in the characters he possesses as an animal but in those which he possesses as being a member of society. These he does not share with any animals, and, as we shall see later, he owes them to a totally different set of laws from those which have determined his animal characteristics. To this whole set of characteristics the conclusions of eugenics, and the rather hopeless deductions from modern studies of heredity, fail to apply.

THE CHARACTERISTICS OF SOCIAL MAN

To set more clearly before us the real significance of the social characteristics of man we will here briefly outline the primary features that man owes to his social in contrast to his organic nature. When we try to analyze human attributes with this in mind we are possibly surprised to find how large a part of them depend upon the social nature. We may clas-

sify these social attributes under the following heads :

1. *Language.* Beyond question, this is a social and not an organic characteristic. Language is impossible except where social intercourse is found. It develops with society and it in turn develops society. If we try for a moment to imagine what the human race would be without language, we see plainly that it would not be man. The individuals might be exceptionally shrewd, cunning animals, but the very essence of manhood would be lacking.

2. *Writing and Printing.* These clearly are language carried many steps beyond speech. If by some miracle we could blot out writing and printing, man would drop back into savagery in a single generation. That these attributes are social rather than organic is self-evident.

3. *The Moral Sense.* By this term we mean that phase of human nature that leads man to a willingness to sacrifice his own interests to another. Here clearly belong the religious instincts. It is upon this attribute that society is founded, since civilization would be impossible without it. That moral sense is a gift to mankind from his social relations may not seem certain, and it will be considered in a later chapter.

4. *Customs and Government.* It has been the existence of a willingness to be governed that makes possible the union of great bodies of men into coherent units. It is this which makes it possible for man to accomplish the gigantic changes on the face of nature that he has been bringing about during all his history.

5. *Knowledge.* Under this broad term we include the vast accumulation of information which the race

has been obtaining century after century in all directions. This information manifestly constitutes the foundation of modern civilization and is most certainly a direct result of man's social relations.

6. *Accumulations.* By this term we refer to the material wealth which man has been heaping up age after age, and it includes all those works of mankind that an earlier generation prepares and which a later generation uses. This wealth has to-day come to be of vast extent.

These various attributes together, it will be readily agreed, comprise all of the highest phases of human life. It is these acquirements that have enabled man to place himself upon a plane far above all other animals; these which have given him his command over nature, animate and inanimate; these which set the human race so far above the mere human animal. Blot these all out of existence, and man would be a brute surely, little superior to his closest animal allies, a rather weak animal, being poorly protected by nature and poorly furnished with either offensive or defensive powers. Far below the lowest savage would he stand, and surely almost on a par with brutes. A human animal he would be; but world-wide different from man as we now understand the term. We cannot avoid the conclusion that the real man is the *social individual*, and his unique characteristics, all his highest attributes, are those coming from his social rather than those coming from his animal nature. The real advance of man over the animals has been in developing his social attributes and not in becoming a better animal.

A little further consideration of these various fea-

tures of mankind which constitute the higher phase of his nature shows us that they are one and all of the class which are generally called acquired characters. Nothing is more certain than the fact that mankind is not born possessing these attributes that constitute his chief glory. The young child does not inherit language, nor does he show a moral sense, nor the principles of government, nor any shred of knowledge from his parents. It may perhaps be questioned by some whether he does not inherit a moral sense, and this subject we shall have to discuss later. But for a moment we may be allowed to assume the truth of this position; and certainly in regard to the other special attributes which we have mentioned above, they are each acquired independently by each individual after his birth. They are distinctly acquired characters, and like other acquired characters they do not seem to be transmitted to the offspring. Although our ancestors have used language for long generations, and though they have been submissive to law and government, it is still absolutely necessary for each child born into the world to learn to speak, and to be taught the principles of submission to authority; and the same principle is manifestly true of the other distinctively human attributes.

SOCIAL INHERITANCE

This conclusion leads us to another of much wider significance. Since civilization is a unique phase of evolution, it must have been developed by laws of its own. Since it is simply a series of acquired characters, it cannot have been inherited in

the common sense of that term. But nevertheless it is perfectly evident that these characteristics which constitute civilization *are* handed on from generation to generation. There is never any failure of one generation to receive them from its parents, and thus they are transmitted from generation to generation just as truly as are the color of the eyes and the complexion of the skin. It thus becomes clear that there is a kind of transmission of attributes from parent to child that is totally distinct from that which our students of heredity have been studying. Our parents may directly give us some of their possessions, so that we as well as they may use them, and yet these need not become a part of our organic nature and never be transmitted by the ordinary processes of reproduction. This kind of inheritance may be distinctively called *social heredity* in distinction from *organic heredity*, which latter term we will retain for heredity as it has been commonly understood.

By the term "social heredity" is meant thus the power of handing on to the offspring the various accumulated possessions of the parents. These possessions may be material, as when one generation of man receives the various structures which previous generations have built. They may be purely mental, as when one generation teaches to the next the facts that have been taught it by the previous generation, or the facts that it has itself discovered anew. They may be even more intangible than this, as when one generation quite unconsciously learns the customs, habits, and even the mental methods of thinking of the last. In all cases, however, the things handed on to the next generation may be looked upon as pos-

sessions which each generation may enjoy and may make use of; but in no case do these possessions become part of the individual so as to enter into the structure of the germinal substance, and therefore they do not become a part of organic inheritance.

Social heredity is thus simply the handing from generation to generation of the accumulations that have been heaped up by the past, wholly outside of the innate nature of the individual.

The laws controlling these two different types of heredity are diametrically opposite. Organic heredity concerns the germinal substance in the egg and sperm. It is fixed and determined by the mixture of the germinal substance of the two parents in sex union. It is not capable of being modified by any action of the individual and is unmodified by any kind of acquired variations. It is controlled by very definite laws, as has been shown by the studies of recent years. It is organic heredity that has been almost wholly concerned in producing the animal and vegetable kingdoms as they exist in the world to-day, and it is this which has been subjected to the severe scrutiny of the last thirty years. It is organic heredity that has been chiefly concerned in the development of what we have spoken of as the human animal, and it is this type of heredity that is kept ever in mind by our eugenic friends in their endeavors to emphasize the primary importance of a control of marriage and of thus securing a better inheritance for mankind.

In sharp contrast to this stands social heredity. This does not at all concern the germinal substance in the egg and is not fixed by the union of germ substances in sex union. It is capable of being modified

by the action of individuals, and may be entirely changed by the development of newly acquired variations. It has had little or nothing to do with the evolution of the human animal, but much to do with the evolution of the civilized human race. It is concerned with the transmission from generation to generation of the highest attributes of mankind, whereas organic evolution is concerned in the transmission of the lowest, that is, those which we sometimes call the animal attributes. It is a factor that our studies of eugenics pay little attention to since it is not controlled by the ordinarily accepted laws of heredity. In every respect, indeed, in its method of working and in the characteristics that it transmits, social heredity stands in sharpest contrast to organic heredity.

Social Inheritance and Acquired Characters.—It will be noticed that the characters transmitted by social heredity stand in quite a different relation from those transmitted by organic heredity in that they can be modified and directed by education. The feeling of hopelessness that attends discussions of eugenics comes from the belief that our inheritance is definitely fixed in the germ substance from which we came; and, moreover, that nothing that we can do in our own lives, and nothing that we may do for our children after birth can affect their heritage for good or bad. If it is assumed that heritage is fixed by the mating of man and wife, and if nothing except a change in the methods of mating can influence the heritage, then truly the only hope for the future lies in the control of marriage. But quite differently stands anything transmitted by social heredity, since, by the very nature of the case, such characters are

transmitted differently. These may be acquired, they may be developed by education, they may be consciously improved by our intelligence, and all the improvements may be handed on to the next generation. The possibility of modifying the nature of the inheritance we hand to our children does not, then, hang upon such an uncontrollable and mysterious phenomenon as the mixture of germ substances in sex union, but it may depend directly upon our conscious efforts. Along these lines an advance in the race may be brought about by improving the conditions of life, even though we are forced to admit that no amount of training can in the slightest modify the characters that we transmit by organic heredity. When we come to learn, as we shall in a later chapter, that the characters transmitted by social heredity far outnumber in scope and significance those transmitted by organic heredity, the whole problem of the improvement and advance of the human race assumes a new aspect. That a good organic inheritance is of value beyond conception no one will deny; and certainly every effort that can be made along the lines advocated by modern eugenics to improve the heritage should receive the heartiest support by all interested in the advance of the race. But if our higher attributes are mostly the nature of acquired characters which may be transmitted by social heredity, then the future of the race does not seem quite so hopeless, even though we do recognize the proficiency of a Jukes family to produce criminals. Social characters may be transmitted to posterity in many cases in spite of an organic inheritance tending against them.

Significance of Social Heredity.—The idea of social

heredity is certainly not new. Of course it has long been recognized that what the parents themselves learn they are likely to impart to their children. To call this by the name of heredity may be somewhat new, but the idea is old. But in former years this idea was not clearly separated from heredity in the more common use of the term. It was somewhat unclearly thought that one generation passed on its characteristics to the next by a combination of methods. It was supposed that each generation inherited at birth certain powers (*congenital characters*), and then by the experiences of life developed these powers, consciously or unconsciously, transmitting to the next generation an inheritance different from that which it had itself received, which was still further modified by the next generation. The whole process was looked upon as heredity without any very definite attempt to separate the different factors. Later, especially after Weismann had thrown so much light upon the process of transference of characters by organic heredity, the complex ideas of earlier days began to get cleared up. As a result the term "heredity" has been retained as applying only to the process of transference from one generation to the next by the germinal substance in the sex cells. The intense interest which was then aroused over the process of organic inheritance drew attention to this phenomenon. As it became more and more evident that acquired characters are not inherited by organic inheritance, they came soon to be slightly spoken of and looked upon as not having any influence in the evolution process. Further, it is a fact that among animals the phenomenon of social heredity has little influence, and inasmuch as

biologists confined their attention almost wholly to the animal and vegetable kingdoms, exclusive of man, it was natural that they should pay less and less attention to acquired characters. It has thus come about that to advance a belief that acquired characters may influence the onward sweep of evolution has come to be regarded to-day as almost biological heresy.

But this is manifestly a very one-sided view of nature. Even though acquired characters may not be inherited in the usual acceptance of that term, they surely have some influence upon life. It is time to turn our attention for a little away from congenital characters, whose appearance in the germ plasm is as yet wholly unexplained, and to see whether we may not have made a mistake in abandoning all acquired characters so totally as factors in evolution. If we find that such characters, instead of constituting a small part of human attributes, really form a larger part of the whole, surely, then, in explaining human evolution the process of acquiring characteristics by the individual cannot be placed behind the process of inheritance. If we find that in the human race these acquired characters comprise nearly all that we hold most valuable in our human nature, then with equal certainty social heredity will not stand behind, but really ahead of organic heredity in determining human evolution, quite irrespective of what influence it may have had among other animals. Since we find these factors are handed from one generation to the next, we are justified in calling the law of their transmission by the name of heredity.

SCOPE OF THE TWO TYPES OF SOCIAL HEREDITY

Having recognized the two sharply contrasted methods by which one generation can transmit its characters to the next, we must raise the question as to the scope of the two methods. An extended discussion of the general conclusions upon this question will be reserved for a later part of this work. At this point will be given a brief outline of the application of organic and social heredity to certain phases of life. Manifestly, we should infer that social heredity is concerned in the transference of all that is generally comprised in the broad term of social attributes, while organic inheritance would deal with the purely animal nature of man. But this statement is too vague to show the real import of the subject.

Social Heredity in Animals.—We may notice, in the first place, that the reason why social heredity has been so generally neglected in discussions of evolution is because such discussions have been largely based upon a study of animals lower than man, and among them social heredity plays a comparatively small part. The lower orders of nature have only been incidentally touched by the forces of social heredity. The essential feature of social inheritance lies in the ability of the individual to learn from his surroundings and to teach his offspring what he has learned, this form of heredity being really a relearning or reacquiring by the young of those things that the parent is able to teach. Now, it is notorious that animals are capable only to the most limited extent of learning anything. Among some of the higher and most intelligent of them there seems to be fairly good evidence that

individuals have the power of learning something from their surroundings. Surely, a dog can be taught by his trainer, and surely too, which is more to the point, a dog, an elephant, or a monkey learns some things from natural surroundings. So far as a monkey in his troop of relatives learns from them how to behave under common conditions of life, so far does he come under the influence of social heredity. Certain it is too that the monkey, by following his mother, is inevitably led into habits of life that materially modify his structure. If we could imagine a monkey brought up in a country without trees, he would become a very different adult from that which his brother had become reared in a forest. With an identical organic inheritance the two animals would become quite different adults. So far then as the animal is modified by his surroundings, to this extent he benefits by the principle of social heredity. Where we find animals living in societies we may therefore assume that a social inheritance is a possibility.

But as we go to the animals with less intelligence we find the power of learning disappearing. The lower orders of animals do not learn from experience, and certainly never teach each other. We may believe that monkeys are perhaps modified by their associations with each other, and that the individuals of a herd of antelopes are somewhat different from what they would be if they lived a solitary life. But it is certainly doubtful whether the individual members of a school of fish are at all modified by their living together, and most certainly social heredity plays no part in the development of a swarm of flies. Among a vast proportion of the lower ani-

mals individuals live more or less solitary lives with practically no contact with other members of their own species, and under such conditions beyond question social inheritance can play no part. As we go lower in the scale of life the influence of social heredity vanishes entirely, and organic inheritance is left as the only method by which one generation can influence the next.

In another respect also we find the action of social inheritance must be limited among lower animals. Since characters thus inherited must be independently acquired by each generation, and, indeed, by each individual, it is manifest that social inheritance can be of great influence only where a generation lasts long enough to make possible considerable acquirements of information. It takes years of training of even intelligent man to make a social individual of him; and manifestly if his life extended only over a single year, no matter what mental powers he might have, his acquirements by the time of his death would be slight, and the great fabric of civilization would be impossible. Now, we must remember that the great host of animals live short lives. Some of them have a generation of only three to four days; some pass from one generation to the next in three to four weeks, while others may live an equal number of months. Some, indeed, live for a year or a few years, and some without doubt live even longer than man himself. But for the most part the lower animals live such short lives that an acquirement of a social inheritance by the process of learning would be impossible because of lack of time, even were the mental powers sufficient. An insect that lives its whole life in three weeks clearly could

not wait for the slow process of learning in order to live its life with success. Social inheritance may be of great moment in a long-lived race, but can be of little significance in a short-lived species. Animals whose whole life is passed in a few days or weeks cannot wait for the slow process of learning, but must depend upon something quicker. Hence we find short-lived animals endowed with instincts which come from organic inheritance. Now, instincts are unquestionably the result of an inherited structure of the nervous system. Two eggs are hatched under the same hen and therefore under like conditions; but one hatches into a duck and runs to the water while the other hatches into a chick and shuns it. No other conclusion is possible except that the nervous system that controls the muscle action is different in the two cases. Our psychologists too are equally confident that the nervous structure of the brain of a child is different from that of an adult, and that it is, moreover, different in the case of adult men in different conditions. The brain of Newton at his zenith was different in structure from that of Nero. The human brain thus becomes molded by experience.

• But in the life of a chick there is not time enough in its few months of existence for the brain to be molded by experience, and the animal is born with its brain already preformed so as to control its actions. We call the actions of the preformed brain by the name of *instincts*, and we learn that the traits so named are handed on from generation to generation by organic inheritance. We call the actions of the brain that becomes molded by experience, but is not preformed, by the name of *intelligence*, and we find that this is not handed on by heredity

but is acquired anew by each individual after years of training.

From all these considerations together it becomes evident that among the lowest orders of nature the factor of social inheritance plays no part, and that even among the higher animals just below man its part is a subordinate one. Only in long-lived species can it be a factor of much moment, and long-lived animals are very rare. While we would not deny that this factor may have had an influence in the lives of some species, its influence is slight. The evolution of the animal kingdom below man has been the result of the action of organic heredity transmitting congenital characteristics from generation to generation.

Organic Heredity in Man.—It is not easy to state accurately just what man owes to organic heredity, or, at all events, it is difficult to draw any clear line separating his organic from his social inheritance. It is, of course, manifest that he owes his physical nature to this law, and this includes all the features of his bodily structure except such modifications of his body as are due to his peculiar mode of life. If he becomes a blacksmith, a watchmaker, a pianist, or a baseball player, the peculiar development of his arms and hands he owes to an acquirement by social inheritance and not to organic inheritance. But except for some few such characters man owes his physical structure to organic inheritance. This physical structure, of course, includes that of his brain as well as his muscles, and with his brain come his mental powers. It is clear that the mental powers with which he is endowed come to him by organic inheritance; but it is equally

clear that he does not owe to such inheritance the new powers that he acquires by using his brain and by learning. What the child *is* when born he owes to organic heredity, but what he *becomes* he owes chiefly to social heredity. This general statement will probably not be disputed. But when we try to determine just how much of the mental equipment of the adult is the result of his organic inheritance and how much of it is acquired by teaching and imitation, we may find a considerable lack of agreement. Inasmuch, however, as the primary purpose of the following chapters is to develop this phase of the subject, we will not here attempt any further analysis of the matter.

SOCIAL HEREDITY IN MANKIND

- . It may be questioned whether the principle which we are considering can properly be called heredity. Certainly, it cannot be so called without a clear understanding of it, which will prevent its being confused with organic heredity. But with a proper understanding the term is perfectly legitimate. Indeed, one of the most common uses of the term "heredity" has always had reference to that phase of it that we have called social heredity. It is common to speak of children inheriting property from their parents, using thus exactly the same term that is used in speaking of the inheritance of black hair or blue eyes. In the common use of the word, inheritance signifies the passing to the children of anything possessed by the parents; and if we adopt this common understanding, it is proper to speak of the child as inheriting the language as well as the property or the physical characters

of his parents. It is necessary, however, clearly to distinguish between the two types of inheritance, and to recognize that they are brought about by a different set of forces and controlled by different laws. If for the one type of transference we use the term "organic" or "germinal heredity," and for the other "social heredity," there can be no confusion of meaning and our use of the terms in this sense is perfectly defensible.

Its Certainty of Action.—We next notice that social heredity is just as sure in results as organic heredity; indeed, it is sometimes more sure. Organic inheritance has always been recognized as a matter of great uncertainty. Even though the parents both have black eyes, it is by no means sure that the offspring will have the same. Some features are indeed fairly certain to be inherited by the children, for we may be reasonably confident that the child will have arms and legs, inherited of course from its parents; though occasionally this rule is broken, for armless children are sometimes born from normal parents. In regard to the countless minor characters there seems to be apparently no definiteness in the result. Part of this doubtless may be due to our ignorance, and we must believe that some day these obscure facts may be made more clear. But it is certain that a child's inheritance is still problematical, even though his line of germinal inheritance is fixed. History is filled with instances of children departing widely from their parents, and cases will occur to the mind at once of the "black sheep" in the family of exceptionally good inheritance, or of unexpected "white sheep" in a family made up mostly of the black variety. With an identical inheritance two brothers

may be far apart in character, so that germinal inheritance seems sometimes as uncertain as the winds. Judging from the past, we shall have to conclude that even if it were possible to control the matings of men and women so that only the better representatives of man should marry, even then we could not be sure that any individual would show an ideal, or even a desirable, inheritance, nor could any family be thus guaranteed against the "black sheep."

In sharp contrast to this story is that of many features of social inheritance. If a child is born and reared under a certain environment, it is certain to develop under the influence of that environment. A child reared in England is sure to talk English, while the child brought up in a Chinese family will as surely speak Chinese. This is far more certain than it is that he will have the same colored hair as his parents. The child brought up in an upright, intelligent family in the United States will develop totally different habits and modes of thinking, even a different conscience, from that which will be found in the child brought up in a Turkish family. Instances sufficient are on record of children being separated from their parents while very young and brought up as members of a family of savages; and they are found when adult to have developed the instincts, customs, and methods of thinking of their savage foster parents. The social inheritance is stronger in such cases than the organic inheritance. The American boy in these days will develop a knowledge of baseball and be able to play it, while the Chinese boy will as surely learn to fly kites. The child of New York, reared within its walls, will become fashioned by his environment into a totally different adult

from the child of Peking or of the mid-African savage village. The social inheritance is sure, for it is totally impossible for a man to be reared in an environment and not to be molded by it. A child of red-haired, English-speaking parents may not have red hair, but he must speak English if he is brought up by his parents. Social inheritance is dependent solely upon the environment in which the child is reared, and is as certain as the environment. To be sure, different individuals absorb this inheritance in different degrees, especially certain phases of it connected with what we call the moral nature; but all absorb some of it, and the integrity of the man who has been reared under one set of influences, as well as the vices of the man of the slums, are to a large extent—one might almost say wholly, if he did not believe in personal initiative—due to the inheritance which society has given him.

The Jukes family has often been quoted as illustrating the effects of inheritance where for generation after generation the offspring of the original pair have produced criminals. The Edwards family is in the same way used to illustrate the effects of good inheritance, since this family produced generation after generation college presidents and professors, as well as other eminent men of learning. We will not attempt to doubt the effect of organic inheritance in these cases, but they may just as well be used to illustrate our point of the inevitable effects of social heredity. It must be remembered that the Jukes children were reared amid crime and profligacy, and were from childhood taught, both consciously and unconsciously, that crime was something to be respected. No wonder they became crim-

inals; so would most children, whatever their ancestry, if reared under these conditions. Social heredity surrounds each child with conditions which it is impossible for him to escape and the influence of which is most profound. Both organic and social heredity have played a part in determining the life of the Jukes and the Edwards families and likely the latter as profound a part as the former. In fiction we like to read of the child of the lower classes rising above his surroundings and becoming successful in a social life of a higher grade; but in actual life these instances are rare indeed. Where they do occur it will be always found that some events in the child's life brought him under new influences, put him into a new environment, or started new ideas and hopes in him—in short, that he was brought under the influence of a new type of social inheritance, and that his departure from the general rule of his family is due to social inheritance. The rule is that the child as he grows into manhood grows into the environment in which he is reared and becomes a part of it—a rule rarely broken. Social heredity is thus one of the most certain of forces and one which no one can escape. In its certainty of action it stands at least on a par with organic heredity.

SOCIAL ATTRIBUTES TRANSMITTED BY SOCIAL HEREDITY

It will naturally be inferred that social heredity will be concerned in the transmission of all that pertains directly to society. This force acts through close associations of men which make it possible for them to interact upon each other in such a way that one individual may benefit from another and one gen-

eration learn from the last. Hence it will concern all those characteristics that go to make up society in its widest sense. This will clearly enough include language, customs, government, knowledge, and the accumulating works of mankind which have been age after age changing the face of nature. In respect to these no question will be raised. We may hesitate whether to regard the tendency to form societies as itself a matter of social or organic inheritance. We may hesitate still more in determining whether the moral sense of man, his conscience, is a matter of social inheritance, or whether this may not be inborn and hence one of the characteristics transmitted by germinal inheritance. If we should conclude after study that the moral sense is a matter of social rather than organic inheritance, we should then be faced with the even more significant question whether there is any distinctive human attribute that comes in any way except through social inheritance. We should perhaps be forced to the conclusion that it is only what we sometimes call the lower side of our nature that is given us by organic inheritance, while all that is more ennobling, all that is most distinctively human, comes to us through social heredity. We should be even forced to ask whether, after all, the chief difference between man and animals is not in the fact that man alone has acquired the power of utilizing this force of social inheritance, and whether what we speak of as humanity may not be thought of as simply an accumulation of the experiences of the ages which man has learned to hand on to his progeny by a method entirely new. If this should be true, it will follow that mankind has by this means cut himself off from the action of the laws of

heredity that govern the rest of the animal kingdom. Perhaps a fairer statement would be, since manifestly he has not freed himself from the ordinary laws of germinal inheritance, that man has created for himself a wholly new series of laws and forces which, in large measure, nullify the older laws of heredity. Humanity, civilization, social evolution, call it what we will, has not developed by the same laws that have produced organic evolution elsewhere. If this is true, we shall have to change front and turn our attention in other directions. It will not be by the study of the laws of organic heredity that we can solve the problems of human evolution, but by the study of that class of characters that we have been calling acquired characters. These, which it has been the custom of the last few years to throw aside as of no significance, assume new and profound meaning. Acquired characters may not have been of much, if any, importance in bringing about the evolution of animals, but they may still constitute the factors upon which human evolution has been built. It would not, then, be wholly or chiefly by the control of the matings of individuals that we should try to control the future, but in large part by the control of environment.

Before we can intelligently apply to the problem of human social evolution the principles thus briefly outlined we must get clearly before us the salient features of that evolution. Instead of continuing here a further consideration of social heredity we will next make a brief study of the history of the origin and development of human society. In this outline we shall have two purposes. The first will be to get a picture of the evolution of civilization

with the forces and influences that have been at work in its progress. In this sketch, of course, we have no thought of giving the details of that evolution, for this would involve universal history. Our object is, rather, to gain an outline which shall disclose the salient features of social evolution, together with suggestions as to its general direction in the past and its probable future. Such a picture will give us the latest chapter in the long history of evolution, a history that began, we know not how far back, with the first form of life that appeared on the earth. Our second purpose will be to show how completely this final phase of evolution has been controlled by what we have called social, in distinction from organic heredity.

This discussion will be taken up in the following order:

The origin and development of language.

The origin and development of the moral sense and moral codes.

The beginnings and development of society.

The fundamental laws and principles of social evolution.

The relation of social evolution to social and organic heredity.

CHAPTER II

THE ORIGIN OF LANGUAGE

It is manifest at the outset that humanity is based upon social habits which must begin with the formation of societies. But it is equally manifest that the formation of societies of high grade must be based upon language, since such society without language is unthinkable. Indeed, the grade of civilization reached by any tribe of man may be closely measured by the grade of its language. A low civilization always means a simple language, while a high civilization means a complex one. The study of the origin of language is manifestly our first task in tracing social evolution. In this study we shall reach a significant result; for the unhesitating conclusion of the studies of the last half century or more is that language, instead of being given to man at any distinct point of creation, has been developed slowly from small beginnings. The evidence for this most pregnant conclusion comes from three sources: (1) the *language of animals*, (2) the *language of children*, and (3) the study of *comparative philology*.

ANIMAL LANGUAGE

Do animals possess any rudiments of language? Many animals certainly understand the use of language, at least to a limited extent. It is wholly unnecessary to give illustrations of this well-known fact, for all books upon domestic animals give instances by the score. No one who owns an intelli-

gent dog can doubt it, and probably no one will venture to raise a question at this point. Whether it be from articulated words or simply from the intonation of the voice is immaterial, for either would imply that animals obtain ideas from sounds. This fact shows that the mental powers of some animals are upon a grade high enough to recognize the use of some words, and consequently considerably above that grade which simply involves perceptions.

More significant, however, is the fact that some animals have means of communicating with each other. This fact, for some years dimly appreciated, has been brought into clear light in recent years by the study of both wild and domestic animals. Even among animals guided mostly by instincts, like the insects, this power is evident. An ant finds a piece of food too large for it to handle alone and runs off to its nest, soon to reappear with several helpers. What happened in the nest, of course, we do not know, and very likely we are inclined to see more in the incident than really belongs there. But beyond question communication must have been conveyed to the individuals in the nest to have caused them to follow the leader to the food. Among higher animals the evidence is better known. A mother hen seeing a hawk, calls her chicks to herself for protection by a few clucks which plainly convey some idea to them. Multiplication of instances is unnecessary, for they are generally known. The method of the communication certainly varies. Sometimes it is by voice, sometimes by variation in intonation, sometimes by actions, and sometimes perhaps by tactile impressions.

Whether it is proper to call this language it is

not necessary for us to decide; but it is important to notice that among animals it never approaches a point where any clear ideas are conveyed by it. My dog and I are walking side by side when certain sounds cause us both to turn around. We both see the same object; probably it makes much the same sense impression on us both, so that we have a similar perception. But I at once *name* the object, an angry dog; and now I stand alone, for my dog cannot follow me in this realm. But does not my dog recognize a difference between dogs and cats, and does he not see that an angry dog belongs to a different class from a friendly one? I judge so from his acts, for he chases the object if it is a cat, makes friends with it if it is a friendly dog, and runs away from it if it be an angry dog larger than himself. Undoubtedly, the dog has a vague, indefinite idea which corresponds in a measure to the concepts which I can name, but which he cannot. Now, when we look closely at the so-called language of animals it seems to be on a par with such crude ideas. When a sentinel of a herd of antelopes gives a warning signal every individual in the herd is put on the alert. The signal probably gave the herd no definite idea of any particular danger, but simply a general recognition of danger. A rooster who calls his flock to share some newly discovered food, or a mother hen calling her chicks to run to cover when she sees a hawk, certainly conveys some general idea, and the ideas seem to be midway between perceptions that animals share with man and the named conceptions that man forms alone. Without going further into this matter, we may say that among the higher animals we can certainly see the beginnings of language

in their power to convey to one another some vague notions that are perhaps too indefinite for words, even if the animals had the power to make words. No one can fail to recognize in a dog's whines, growls, and barks, given with varying intonations, that he can convey to us his feelings of anger, pain, or entreaty, and doubtless to his brothers these sounds are equally intelligible.

CHILD LANGUAGE

If we compare this condition with the language of the young child, we find a striking resemblance. In early childhood the child passes through a stage in which his language and mental powers are both upon practically the same level as those of animals. At first his expression of feelings is confined to such intonations of pleasure and displeasure as are shown in laughing or crying. But presently he gains a few more general, vague ideas, and with them an ability to express them. He holds up his arms to express his desire to be taken up, a gesture that is plainly on a par with that of a dog sitting on his legs to beg for food. The use of gestures, however, is never highly developed in the child, because he soon learns by imitation to use words.

It will be instructive next to notice what sort of language the child first develops as he begins to use words. It is most suggestive to find that all his words early indicate that his mental actions are vague, and that he is on about the same plane as the animal. The words he uses are of the broadest character and have a most indefinite and wide meaning. Everyone who has watched young children will think of many examples. The word "star" means to him

at first a star, a sun, a lamp, or a fire, or anything bright. The child has conceived the general idea of brightness and uses this word to apply to this quality. The word "papa" means at first a combination of trousers and whiskers and applies to one man as well as another. He has distinguished between the class of mammas and papas. Later he confines the word to a particular person of the class, but only after years does he come to know what "papa" really means. The fewer his words the broader their meaning, and as he advances in speaking it is by constantly narrowing the use of the words. Illustrations are unnecessary. The significant point is that in learning to use language the child begins like an animal. In the first few months he uses only intonations and gestures; but he soon begins to apply sounds, which he learns by imitation, to the crude indefinite impressions made upon him by his surroundings. The first words he uses are not the fundamental words of the language, but are such as express his growing experiences. They are the same kind of experiences which animals possess, and which they too express after a fashion, though, of course, the animal never reaches the word stage.

PRIMITIVE LANGUAGE

It cannot be too strongly emphasized that the use of word language comes to the child from the imitation of his elders and not as a spontaneous development on the part of the individual. If the child were left entirely to himself, without hearing any speech, he would not in his short life develop the power of using language. Helen Keller did not lack the keenness of mind of other children, as has been shown by

her wonderful life, but until some one, who was in contact with society, as she was not, found means of teaching her she had no language. If two children could be imagined to have grown up together without ever hearing any speech, it is quite possible that they might learn to communicate with each other such simple ideas as touched their simple life, but it is sure that they would not develop such a complicated system as our language, which has been the result of the accumulated efforts of thousands of generations. All races of mankind develop a language, but they do not receive it by organic heredity.

That the child acquires its power to use language by imitation, that is, by social inheritance, no one can doubt, for we see it as a matter of daily experience. But the real question is not so much how our children acquire language as how primitive man first obtained his language. Primitive man at the first could certainly have had nothing to imitate. How did his language start? What sort of a language was it? Did it consist of few simple words, expressive of the vaguest ideas such as those used first by a child, and was its history that of a gradual refining of those notions into a real language? Or was language given to mankind originally by some force which furnished it ready for use? Was it furnished man as a congenital inheritance, or did he learn slowly by trial and transmit his knowledge by teaching? The answer to this question can hardly be doubtful considering the nature of language; but the facts derived from the study of philology are especially cogent and give valuable and interesting evidence upon the matter.

The Evidence from Philology.—There is naturally no

direct evidence within our reach as to the type of language possessed by primitive man. But by the study of various phases of language we are able to get such a clear idea of its development as to tell us much concerning primitive language. The data upon the subject have been accumulated by a class of students who had originally no special interest in any theory of evolution and were interested in language itself, quite oblivious of the far-reaching inferences that came from their conclusions. It has been students of philology who have collected, analyzed, and classified the data bearing on the subject; but the conclusions have given us an illuminating conception of the development of the mind of primitive man, since we cannot avoid the conclusion that the mental status of any race is on a par with its language. Since the studies on this subject were made by philologists, and not by students of biological evolution, their conclusions will be all the more valuable as attesting the slow development of the human race from a point where it merges into the stage of the mere animal.

The force of this statement will be realized when we notice the general conclusion of philology. This study has demonstrated in no uncertain manner the conclusion that the language of mankind has developed from rudimentary beginnings. It is, of course, true that many points have been and are still in dispute to-day over which philologists are waging battle royal. But on the general matter there is no dispute. Human language has been the result of growth, and did not come into the possession of mankind fully developed and ready for use. From simple, and, indeed, rudimentary beginnings, it has

slowly developed and expanded into its present condition.

The sources from which our evidence for this conclusion have been derived are three. 1. The study of the records of ancient language as they may be found in the oldest literature. The older the literature the more significant it becomes as being nearer to primitive language; and naturally Sanskrit, representing, as it does, the oldest language with a literature, is called upon for the largest number of facts. But all written languages offer collateral evidence. 2. The comparative study of existing as well as ancient languages. As numerous languages complex as well as simple are compared, an immense wealth of information has been obtained as to the meaning and development of speech. 3. The study of child language, compared with simple languages. It is possible to doubt the cogency of this last line of evidence. Biologists in general have learned that embryology repeats past history; and possibly we might expect that it would do so here, so that the child learning to talk would give a sketch of primitive man developing language. But the cases are not parallel. The child of to-day learns to speak by imitation of his elders, and primitive man could certainly not have at first thus acquired his language. In other words, the child gains his language through social inheritance rather than by organic inheritance, and it may well be that the law of embryological repetition, which holds for organic heredity, will not hold for social heredity. Still, it will be not without significance to compare the development of speech in the child with what appears to be the development of language in the race.

The Records of Language-Building.—We can trace language toward its beginnings by two general methods. We may study the literature of the earlier ages, or we may study the languages of the lower races of living men. By either method the result is the same, for by either method we find language becoming simpler and simpler. The earliest written language is vastly simpler than any written language of to-day, and the languages of some savages are simpler still. The simplification of language is seen first in the fact that as we go backward many words disappear. The words of the complex, highly developed languages are largely coined out of combinations of the earlier and simpler words, so that the farther we go back the smaller become the number of words, until even in the earliest written language their number seems surprisingly small. Sanskrit, representing, as it does, the oldest language with a literature, becomes of special interest since to it we are able to trace most of the later inflectional languages. The languages derived from the Sanskrit are noted for their wealth of words, and with this in mind it seems hardly credible that one of the early philologists, Müller, at one time thought that he could trace the whole language back to one hundred and twenty-one original words, or "roots," as he called them. It must not be inferred that Müller found any literature so primitive as to be made of such a small number of words, since even the earliest Sanskrit known contained many more. But he thought that by analyzing the words of early Sanskrit he could find evidence that they were themselves compounds from older and simpler forms, and he finally reduced these to one hundred and twenty-one. Other phi-

lologists have not followed Müller quite so far in this simplification, and it is generally admitted to-day that the oldest literature gives evidence of a larger number of "roots" than Müller was at one time inclined to accept. But even though the words cannot all be reduced to quite such a small number, it is universally admitted that the number of words in early Sanskrit was surprisingly small, and that they pointed toward a condition in which they were fewer still in an earlier age. From such a condition we can legitimately go a step farther back and recognize the inevitable existence of a language so simple that the few root words were all that existed. Of such an early language, of course, literature could only give us a hint, with here and there a suggestion as to what the language was. Writing must have come into existence ages after speaking. Many races of men are not yet able to reduce their language to writing; and a language like Sanskrit, which had not only reached the stage of writing but had even risen to the grade of a literature, must have been an immense distance from the primitive language. Considering the tremendous amount of time that must have been required to convert the first spoken words into a definite language, and then to have developed writing and a literature, it is surprising to find it as simple as it is.

Even though Müller's roots can no longer be accepted as forming the foundation of all of Sanskrit, it is certain that these one hundred and twenty-one words were very prominent, and it will be instructive to note briefly the ideas represented by these few root words. They nearly all seem to be verbs, and refer to types of action which the very crudest intelli-

gence must have recognized, and many of which must also be vaguely comprehended by animals. They consist of such words as eating, singing, hiding, stealing, and the like. These are ideas which, when named as man names them, become concepts, but some of which are certainly vaguely comprehended by the more intelligent animals. An animal that examines an object, and, after giving one smell, decides that it is good to eat, or not good to eat, has certainly a notion of the process of eating, ready for a name if it had the power to give it a name. In other words, many of the fundamental roots of the oldest Sanskrit language are expressive of just such ideas as are vaguely developed in the minds of animals. They are names for exactly those ideas which we should suppose man would first acquire, upon the supposition that his mental powers, with his language, were developed from the lower condition represented among animals. Animals, of course, never name these ideas, and at this point of *naming* we come to the break between man and the lower animals. As soon as man succeeded in naming these crude ideas they became concepts, and thus became instruments for communication of ideas from person to person. While no animal but man has had the power to give names, it is certainly suggestive to find that the primitive words of the oldest language contained most prominently words for just the simple general ideas that animals seem to possess as well as man, and which must have been the first thoughts to crystallize into clear ideas in a being who was beginning to rise into a plane of thinking. Of the higher conceptional notions which mankind later possessed, such as truth, beauty, sublimity, etc., there is abso-

lutely no trace in the roots of early Sanskrit. These concepts were not in the language, and we must naturally infer that they did not exist in the minds of the people using the language.

Comparative Study of Living Languages.—Sanskrit is evidently far from a primitive language, and we may naturally turn to languages of the lower savage races to see if among them we may not find something more primitive. Such we certainly do find. Among the various tribes whose languages have been studied we find some that are on a par with the imaginary early man when his speech consisted of a few words only. It is sometimes a marvel to us who have such difficulty in mastering one or two foreign tongues to read of African explorers visiting tribe after tribe, each with its own language, and learning quickly to converse in them all. But the surprise somewhat disappears when we learn of the real dearth of words and the simplicity of speech. Savage languages are totally lacking in abstract words, showing, of course, that the savage thinking must be in concrete rather than abstract ideas. Frequently such a language will have names for concrete objects, but no general name for classes of objects. For example, one Zulu tribe has ten names for different kinds of cows. It has a name for a red cow, a white cow, etc., but it has no name for "cow." The Tasmanian language has several words representing different kinds of trees, but no word for "tree." Some travelers have supposed that this represents a very complex language; but the reverse is the truth, for it represents a language too crude to have formed any class objects, and it certainly represents a type of thinking so distinctly in the concrete as never to have felt the need

for a class name "tree" or "cow." That such savages have a notion of a tree we may not doubt; but possibly any dog has a notion of class objects too, for he certainly places cats in a different class from dogs. With the dog the idea has not become clear enough to demand a name, and with the savage also hosts of these class ideas are still too vague to demand a name. Savage languages have a "hopeless poverty in the power of abstraction." The savage lives largely in a world of concrete thoughts, and his language fits his world.

In still another direction does the simplicity of early language show itself. Not only do words vanish as we come toward simpler languages, but some of the parts of speech disappear entirely. In primitive tongues the distinctions between nouns and verbs vanish, and nouns, verbs, and adjectives may merge in one comprehensive word. For example, the word "round" may mean a round thing, or it may be used as an adjective, or it may be a verb indicating the making of a thing round, this serving at once as noun, verb, or adjective. Such a use of words wonderfully simplifies language, but it makes it correspondingly less clear and definite.

The use of words with several meanings points unmistakably to a simpler condition still, frequently found illustrated even to-day among some peoples, where a single word represents a whole sentence. Such a sentence word may serve to give not only a thought of the object but of an action as well. For example, a savage hearing a cuckoo singing in a tree might simply utter the word "cuckoo." This word, especially if used with a certain intonation or a gesture, might mean not only that he heard a

cuckoo, but that he was going to hunt for it; or it might be a command for another to go on the hunt, the one word serving for a whole sentence. Such a use of language is occasionally found to-day; and our philologists are agreed that there is evidence that language in general must be traced back to sentence words, the earliest step in language formation being the use of single words to express complete ideas. But such sentence words are incomplete without either special intonations or gestures, or both. Simple languages of savages are commonly, if not always, accompanied by gestures. Some savage languages are largely gestures with a few words, and in some African tribes so large a part do gestures play in their languages that it is said they cannot understand each other at night. There is every reason for believing that the primitive language was differentiated into the parts of speech by pointing and thus that grammar arose from gestures. One of the first parts of speech to be differentiated was the pronoun, and pronouns came from pointing. The speaker might point to himself as "I" and to another as "you" or "he," and from such gestures arose the pronouns.

THE NATURE OF PRIMITIVE LANGUAGE

From various facts of the nature just mentioned the attempt has been made to picture language at its origin. It is, of course, evident that nowhere have we any primitive language to study. The oldest written language was the Egyptian, of which we have records going back probably four thousand years or more. But it is self-evident that a language that has reached the stage of being written is very

far removed from a primitive stage, and hence the origin of language must go back far earlier than the Egyptian. We can find no race of man just learning to speak; for every savage tribe has a language, even though in some cases the language is simple, crude, and partly dependent upon gesture. Our only conception of the origin of language must, therefore, be obtained by inference. By tracing language backward we may be able to see the direction in which it seems to be tending, and from this gain a fairly accurate conception of its still earlier stages.

* Now every bit of evidence from all sources tells the same story. As languages are traced backward the tendency is always toward simplification, by loss of differentiation, by loss of words, and by the use of words with a broader and less definite meaning. This tendency is so evident and so universal that philologists, quite independently of any conception of any special theories of evolution, have concluded that it points clearly toward a time when language did not exist at all, and when therefore the human beings were obliged to create, slowly and painfully, a method of communication by speech. It may not be unprofitable to note a few of the steps that have been suggested as leading to the invention of language. The start must have been in the crude general ideas which represent life experiences of all higher animals, and which man must have had with the rest; such experiences as eating, running, etc. The first step must have been in applying some recognizable sound to these ideas. Mr. Garner believes that monkeys do this to a slight extent although his observations are not generally credited by naturalists. How the first sounds came to be

applied to the ideas is a subject on which philologists are not agreed. One favorite notion has been that the first sounds were imitative of sounds in nature. Some words are manifestly so, as, for example, the word "cuckoo." But this theory of the origin of the first words has been much disputed, and the evidence for it is not very strong. The spontaneous cries of animals have also been suggested as furnishing a starting point. These emotional cries are recognizable in all higher animals, and they clearly indicate two different mental states at least. We may recognize among animals that use these cries one indicating a need or desire, and another indicating a warning, a summons, or a threat. Man, with a more efficient vocal apparatus, increased these emotional cries by reduplication and intonation until, according to some, they became the starting point of speech. To these latter were added other sounds derived from an attempt to imitate sounds in nature, used first to indicate the object imitated, but from this easily coming to refer to the properties of the object. Whatever may have been the origin of these first words, whether by imitation or by spontaneous cries, or otherwise, of course all trace of their origin soon disappeared as they acquired new and more definite meanings and began to crystallize into language.

In such a primitive language there were doubtless only a small number of sounds expressive of the general notions that entered into the life of man. Words were at first whole sentences. Into a village a man runs shouting "Elephants!" and this one word is enough to announce that he has seen these animals and summons others to join in a plan for hunting them. When these pregnant words were supple-

mented by gestures they became more useful and constituted a great advance over the language of the highest animals below man. But how different from the developed language of later generations! But we must remember that the life of these men was on a very narrow plane; their needs and interests were slight and their sentence words and gestures were sufficient to make possible the beginning of that social life which, as we shall see, was the secret of the elevation of the human race into civilization. With increasing social needs came the need of more definite speech, and by contact with each other, by testing and trial, a differentiation of the wide meaning, pregnant, early words took place, slowly enough at first we may be sure. Words were joined together in such a way that the closeness of the words showed connection in thought. Verbs and subjects came to be used and the sentence evolved. But meantime man had learned to combine two or more words together into one with a new meaning, and such combinations enriched his vocabulary. As he acquired more words he felt more and more the need of them; for his life became richer and he had greater desire to impart his experiences and thought to others. Old words were brought into new relations, and the original words presently lost their early meaning and became the roots out of which language was built. Sentences took the place of sentence words; adverbs and pronouns replaced gestures, and, with the early words capable of being molded and modified, language was well started in its evolution. Of course it was still a long distance from a possibility of a written form, and much less of a literature. The unknown length of time preceding the earliest

written language must probably have vastly exceeded the period that has passed since that time.

Primitive Language and Child Language.—It is suggestive to notice that there is a close parallel between primitive language as outlined above and the language of the developing child. The child with his dawning intelligence may be compared with primitive man beginning to use his mind, and the method of acquiring language is much the same. At first the child has no way of expressing his feelings except by his emotional cries; but these are quite sufficient to express his feelings of pleasure or dissatisfaction, and even of entreaty or command. Presently, from hearing words used around him, he begins to imitate the sounds he hears and soon attaches them to his wants. Then we find always a stage when he uses sentence words in the same indefinite way that we have already noticed. He has learned to associate the word "up" with his being taken up by his parents; and now by using this one word, perhaps accompanied by the holding up of his arms, he conveys an entreaty or a command, the one word "up" serving as a whole sentence. The sentence word is all that he needs to express his desire. But presently his ears and his mind catch new words, and he begins to put them together. He now says "Papa up," or "Baby up," meaning by it just the same that he did by the single word "up." Presently it is "Papa baby up," a little further differentiation of the sentence, but with no added meaning; the word "up" still serves as verb and adverb. After a while he begins to use the words "you" and "I." We must not place too much emphasis upon this fact, however, since the reason why the child does not early learn

to speak of himself as "I" is because he learns by imitation, and never hears himself called as "I," but always by some name. Of course he cannot be expected to use the personal pronoun until his intelligence has considerably developed. It is not particularly significant that he learns to use pronouns late, although some students of the child mind have made a great point of this fact. Be this as it may, we now find that the progress in the development of language is rapid and consists in the gradual differentiation of broad words into the parts of speech. The method of putting words together to form sentences is, of course, the result of imitation, and, indeed, the whole acquirement of the power of speech is the result of imitation. But it is certainly interesting, in view of what we have noticed of the probable method of the original formation of language, to find that the child universally learns to speak by the same route, namely, sentence words, the formation of sentences by the simple approximation of words without real verbs, and finally by the further differentiation of broad words into parts of speech of more definite meaning.

It is also important to notice in this development of the child that the first words he uses are expressive of that class of simple ideas which lie in the region between precepts and concepts. The word "up," for example, has for the child no clear notion. It is not a real concept, but represents one of those intermediate types of ideas which lead from precepts to concepts. With the animal world such ideas never pass beyond this stage, but with the child the crude notions rapidly become more definite. A word which at first stands for the idea of subject, object,

and verb together, soon becomes freed from some of these ideas, and finally retains a very much narrower content, until in the end a real concept is formed, which can then be used in quite new connections. Exactly where in the developing mind and speech of a child the change takes place no one can say, but the significant fact is that the change does occur.

Just what is the meaning of this parallel between the development of child language and the origin of race language may not be wholly clear. It is a law in the organic world that the development of an animal from the egg repeats more or less of the past history of the race, and this law has sometimes been used to explain the parallel we have just drawn. But this hardly seems legitimate, because in the development of language we are not dealing at all with that type of heredity which has controlled the evolution of animals. Language is not transmitted by organic heredity, but is acquired anew by each generation, and the laws of repetition which apply elsewhere may not apply here at all. It seems probable that the explanation of the reason why the child goes through these stages is simply that they represent the simplest, straightest, and easiest course by which the developing mind can reach the end. Before he can imitate a sound the child has wants which he can express only by emotion cries. He learns only a word at a time; and when he has only one or two words he simply connects the sound of each word with the experience in his life in connection with which he has learned it. The word "up" was learned in connection with his being taken up, and he simply pronounces the word when he wishes to be

taken up. And so he goes on using the words he learns, one at a time, at first singly and later in combination with each other. This is the simplest and straightest road toward speech, and it is hardly conceivable that the child should take any other route. But this makes it all the more probable that the beginning of language in the early history of man was something as outlined above. Primitive man too, as well as the child, would inevitably have taken the simplest plan to make himself understood. If his mind was developing in those early days as the mind of the child certainly develops, it is inevitable that the simplest means of communication of ideas would be followed at first. Intonations, sentence words, followed later by a differentiation of words, and finally of sentences, would be the natural course to primitive man as well as the child—a fact that tells us almost surely that the outline given by philology for the beginning of language must express the essential facts.

THE DEVELOPMENT OF LANGUAGES

Whether there was more than one beginning of language in human history we have no means of knowing. This seems to be a part of the other question whether the human race had several origins or only one, a question for which science has as yet no answer. If the race of speaking animals were only one at the start, it must surely have separated early into groups which have since kept isolated from each other; and this isolation must have taken place before language had become well developed enough to have any definite form, for the languages of different great groups not only differ totally in words, but

differ also fundamentally in their structure. One great group, the *isolative*, developed a few monosyllabic words and then made its language by grouping these words in an endless variety of relations. Another, the *agglutinative*, created its language by fusing together into single words of great length several shorter words, thus making a language rich in long words. Another group developed its language by adding to its primitive words certain prefixes and endings which denoted relations, giving the *inflectional languages*. Whether these types of language ever really came from a common center, or whether different groups of primitive men each independently created a language for itself, there is no good evidence for deciding. If they ever were connected, certainly all trace of any connection was lost long ago. The differences between the structure of the different languages and the absolute lack of anything in common among them would seem to suggest that they have been independently acquired. Such a conclusion is the most natural one possible. In the study of organic evolution biologists have difficulty in accounting for similar results appearing in unconnected lines. It has always been a puzzle, for example, why the vertebrate and the squid should develop eyes with such a remarkable similarity, since it is evident that heredity could not explain this likeness, the vertebrate and the squid not being in the same line of inheritance. But that all races of man should have developed a language offers no mystery at all, since this has not been developed by the processes of organic inheritance, but developed by intelligence and has been handed on by social inheritance. Assuming that language has thus had its origin more

than once among primitive men, while it has never appeared to any extent among animals, we are faced with the significant question as to why man alone has developed language.

It is self-evident that language from the beginning has been of the nature of acquired characters and has been handed on by social heredity only. It has been recreated by the mental activity of each generation of mankind. It has never found its way into the germinal substance and no language is given to the race by organic inheritance. One generation has learned from the last, and then each generation has its opportunity to add to this inheritance by contributing new words or new methods of using words. The structure has thus been intelligently built up step by step, and any generation, or, indeed, any individual, may by its or his own efforts add to the heritage which the next generation will receive—a privilege which it does not have in regard to the characters transmitted by organic heredity. Now, we must remember that human civilization is absolutely dependent upon the mental power, and that the powers of the human mind are wholly dependent upon language. We cannot think of society without language, for it could not exist. The foundation of human evolution, then, is not based upon man's physical structure, but upon his developing a language, and this is based not upon organic inheritance, but upon social inheritance.

THE DEVELOPMENT OF LANGUAGE AND MENTAL EVOLUTION

It is not impertinent to our topic to note how intimately language and mental evolution are con-

lected. If language has developed from small beginnings, it follows as a corollary that the power of thinking has been a matter of equally slow development, since the thinking cannot transcend the speech. If it is true that in the history of the race language has progressed from a condition where words simply expressed crude general ideas, it is equally true that the thinking powers of man have passed through a corresponding stage. If there ever was a time when the human race communicated simply by sentence words and gestures, it follows that there was a time when human mental processes were on a par with this language. In other words, there is no real break between the mental actions of animals and the more complex thinking of man. There is a great difference, indeed, between the mental processes of animals and of man; there is an equal difference between the mental processes of the babe and the man who grows from the babe. But just as there is no break between the mind of the child and the adult, so there seems no break between the mental actions of the highly developed animal and the human being. In both cases there has been an orderly sequence of development. In one respect there is a difference. The child does develop higher mental powers, while the animal never does.

Why Has Man Alone Developed Language?—After all has been said the fact remains that man alone has developed language, and in him alone do the mental activities pass from the rudimentary condition of the child or the animal and reach a higher plane. The child and the animal both lack developed mental powers, but only the child later develops them. Here, after all, is the radical difference between man

and the animals. We may undoubtedly find among animals rudiments of the mental attributes of man, and we certainly may find a long series of links between the mental powers of animals and those of man. But in the one case these powers develop into intelligence, while in the other they do not. If animals do possess the germs of intelligence, why have not they as well as man developed into the higher plane of mentality? Any complete theory of evolution must recognize this question and find an answer. Man is of comparatively recent origin. Compared with other animals, his life on earth has been only a few centuries. During this brief history his mental powers have progressed immensely, until the difference between him and the most intelligent animals has become prodigious. The very facts that have shown the presence of so many rudiments of mental processes in animals make all the more forcible the question of why in man alone they have developed beyond rudiments. If this mental power is of such value to its possessor, and if the germs of intelligence are present in other animals, why is it that in man alone they have developed? Unless we can answer this question we must acknowledge that the problem of the evolution of man is not answered. Is there any answer to the question?

At first this question seems to be similar to thousands of others that might be asked in regard to any other valuable character of animals. If an eye is of so much value, why have not the worms developed eyes? If a wing is so useful to enable its possessors to escape their enemies, why has not the rabbit developed wings? Such questions might be asked indefinitely, but science recognizes that they are all

idle questions. To ask the scientist to repeat all the myriads of incidents which have led one animal to develop in one direction and another in another, is as fruitless as to insist that he should explain in detail exactly why every leaf in the forest chances to fall on one side or the other, before we would admit the cogency of the law of gravitation. They are incidents in the general application of law, and incidents only.

The question before us, however, is quite different from any of these. All other such questions are problems of organic structure and are bound up with the still mysterious laws of organic inheritance. Language is an artificial structure which is consciously built, and its possession is not dependent upon a question of organic inheritance. It could be acquired seemingly by any animal with sufficient mental powers to make use of it. The very fact that we do find among animals so many rudiments of human mental activities makes even more cogent the question why in mankind alone they have really developed any power of speech. What has been the stimulus which started the development of the mental powers of man and forced it into such a marvelous advance while other animals have remained upon a low plane of monotony? The force of this question has appealed quite differently to different scientists. Wallace has felt its force so vividly as to have been led to assume some special supernatural stimulus as being required to start the wonderful development of man. Others have not accepted such a position and have tried to find some other more natural kind of an answer.

We notice, first, that mind and language in a

measure explain each other. The rapidity of the evolution of the human mind is partly explained by the aid it received from its new tool language. Without language animals cannot hand on their experiences, and their intelligence could develop no faster than race experience could be incorporated into the organic structure by inheritance. This process, if acquired characters are not inherited, is very slow. Experience is not transmitted by organic inheritance, and without language animals could not teach each other nor benefit by each other's experience. But just as soon as a race developed the power of speech the whole problem was changed. Then communication between individuals made it possible for the knowledge of the one to be imparted to another. From this time the development would be immensely accelerated. It would be like the avalanche, small at the beginning, but increasing more and more rapidly with each increment. Mind and language would react on each other, and the advance of the one would make possible a new step in the other. Language developed mind and mind created new needs for language.

Now, no one will perhaps question this statement, for it is practically self-evident and is a matter of history. But it is hardly a sufficient answer to our question why man alone developed the power of language and the accompanying mental power, for why should not the same history have occurred in other animals? Sometimes an attempt is made to find an answer in the fact that man alone, of the highly intelligent animals, has developed organs which make articulate speech possible. Herein may doubtless be one of the reasons why *speech* belongs to man alone, and why man alone has developed the rapidly

increasing intelligence that has accompanied speech. But we are still unsatisfied, for there are other possibilities of language besides articulate speech. Some tribes of men have a language made almost wholly of gestures, and other animals besides man could certainly have used gestures in developing language. The answer to our question is, then, not to be found in this simple statement that the human vocal organs made speech possible, and speech then forced the development of mental powers.

There is at least a partial answer to this question which is to be found along the line of our discussion. Man alone of all animals has discovered the possibility of utilizing to its utmost the force of social heredity. Speech, with its accompanying mental growth, is dependent upon this type of inheritance which the lower animals have scarcely utilized at all, and human development has thus been dependent upon the newly acquired, or at least newly emphasized, power of transmitting acquired characters to one's offspring. But this leads to a second question of equal significance. Why has mankind alone acquired the power of utilizing this new factor? The answer which we would give to this question involves all the rest of this work. It may, however, make our discussion clearer if we anticipate the conclusion which we shall be forced to reach. This conclusion is that *the force which has produced the mental development of man, with all its accompaniments, is the instinct which has resulted in the development of the moral sense. Human evolution and human civilization have been the result of the exaltation of the ethical nature of mankind.*



CHAPTER III

THE EVOLUTION OF MORAL CODES'

THE PROBLEM OF THE MORAL NATURE

No phase of human evolution has developed so much dispute and uncertainty as the problem of the moral nature. The reasons for this are clear. 1. Here is the most distinctive characteristic of man. It is his moral rather than his intellectual nature, as we shall later see, that is the foundation of his civilization. 2. The moral sense is the one attribute which is most closely allied to the religious notions that we hold so dear, and it has frequently been assumed that the acceptance of an evolution of the moral sense would undermine the grounds of religious belief. For this reason many have held tenaciously to the belief that the moral sense was God-given, without appreciating that it would be just as truly God-given if it came to man by a slow process of development as if it came by a single creative fiat. 3. The origin of the moral sense has proved the most difficult problem for the evolutionist to solve. There may be found among animals rudiments of most of the common mental attributes of man, and hence the problem of their development into the grade of human intelligence is a comparatively easy one. But animals do not possess a moral sense. No one claims that animals recognize right and wrong. Moreover, it is difficult to discover in the lower orders of nature anything that can be looked upon as offering elements that might have developed into human con-

science. Seemingly, the moral sense is new with man.

From the standpoint of our discussion the really significant question is whether the moral nature is the result of innate or acquired characteristics. If it is innate, it is, of course, inbred into our nature in such a way that it has become a part of the germinal structure and is, therefore, transmitted by organic inheritance. If this is the case, every individual is born with his moral sense fixed in his nature in such a way that neither he nor any one else, not even society, is responsible for it. If this is the case, the only way to modify the moral sense will be by improving the mating conditions of men so as to produce a race of better-equipped men in this respect. But if the moral sense is a matter of social inheritance, the matter stands very differently. In this case it has been the result of teaching and learning, and the person is more or less responsible for his moral sense, and other people and society in general are directly responsible for it also. If this be true, it would be possible to elevate the moral nature of the race by education, by training, and by changing the conditions of social life. The question whether the moral sense is innate or acquired has, therefore, particular significance.

This question, whether the moral sense is innate or acquired, has been long and vigorously studied by both philosophy and science. Into the philosophical aspects of the case we shall not pretend to enter; but it is necessary for us to consider carefully the scientific conception of the subject, since the whole problem of social evolution is dependent upon the conclusion. The study of the moral or ethical condition

of the lower and primitive races, combined with the knowledge of early ethical standards as disclosed by historical records, together with a study of the development of the moral nature in the child, give data for a legitimate conclusion as to the origin of this side of human nature, and for concluding that, at least so far as concerns moral codes, and possibly also as concerns the moral sense itself, the ethical nature of man is mostly acquired, and thus transmitted by social heredity rather than by organic heredity. But while this is true, we have to recognize that even those theories of the origin of the moral nature which attribute it largely to social heredity regard it as developed from two basal instincts, which, like other instincts, are matters of organic inheritance. These two instincts are (1) *the struggle for the life of the species*, and (2) *the social instincts*.

STRUGGLE FOR THE LIFE OF THE SPECIES

The development of the moral nature is dependent, first, upon a phase in the life of animals that has only recently been fully appreciated. Influenced by Darwin, science has become impressed with the notion of the struggle for existence, and as animals in nature have been studied the most patent fact has been that each animal and plant is in severe competition for its own existence. Natural selection has been studied chiefly as affecting the individual in competition with others for his own life. This is a most obvious conclusion.

But in the last few years emphasis has been placed upon the fact that, in addition to this struggle for the life of the individual, there is a more fundamental struggle for the continuation of the species. Indeed,

it is toward the race as a whole rather than the individual that natural selection is directed. In speaking of this as a new line of thought we do not mean to imply that the conception is actually new. It was recognized by both Spencer and Darwin long ago. But though long ago recognized, its great significance has not been commonly appreciated. We have been so occupied with the idea of the individual's struggle for his own life that the other side of the problem, with its numerous and far-reaching consequences, has been too generally neglected. Clear thought shows us, however, that natural selection must be always directed toward the survival of the race rather than the individual. Natural selection, it is true, preserves the best fitted individuals, but only when they are the individuals best fitted for the preservation of the race. Nature is sure to eliminate those that are incapable of reproduction no matter how excellently fitted they may be for the personal struggle for life, while it preserves those best able to perpetuate the race, even though the individuals be poorly adapted to the struggle for life. The former may preserve its own life longer, but if it cannot produce offspring, it eventually disappears. This important fact, which quite changes the aspect of natural selection in many points, has only recently been brought into prominence. It has been discussed by Brooks as a "*struggle for the life of the species*," and by Drummond as the "*struggle for the life of others*." In certain aspects it is *altruism*, and in some respects it is independent of and opposed to the struggle for existence.

As the result of this law the individual may become of no significance and will be, if necessary,

readily sacrificed to the good of the race. This is most noticeable among lower organisms, but evident enough among the higher. Among low animals the individual is commonly sacrificed completely in the reproductive act. The simplest form of reproduction is simple division, in which case the parent always disappears as the offspring appears (*Protozoa*). In some higher groups (*Hydroids*) the individual from the beginning of life feeds and grows rapidly, increasing in size and vigor. But this is only in preparation for the reproductive act which is its culmination. In the act of producing reproductive bodies the energies are all spent, and after this act is performed the individual dies. As we rise in the scale of nature this sacrifice to the reproductive act becomes less universal, and an individual may continue to live for a period representing several seasons of reproduction. It is to these higher forms that our attention has been chiefly directed in the study of the laws of evolution. It is the *individual* and his struggles for his own life that has engaged our attention, until we have failed to appreciate that he is an incident and not the end. Even among higher forms it is clear enough that the apparent purpose of nature culminates in reproduction. The instincts connected with the reproductive act are so strong as to obscure even the ordinary instincts of self-preservation. At the breeding season the salmon is forced by an irrestrainable reproductive instinct to ascend the river to deposit its eggs. This act is doubtless useful for the perpetuation of the species, but it is extremely destructive to the life and interests of the individuals. They ascend the river fat and vigorous and in great numbers. But the

dangers that they meet in their journey destroy them by the hundreds of thousands, and few survive the severe battles of the journey. In the ocean they remain for a series of months to gain sufficient vitality for their perilous journey when the breeding season comes. From the standpoint of the individual it would certainly be better for the animal to remain in the ocean. But from the standpoint of the perpetuation of the species the river spawning is a necessity, and the individual is ruthlessly sacrificed to the continuation of the race.

This principle runs through organic nature, although it is not uncommonly concealed by certain more obvious facts. It is certain that among animals and plants each individual is engaged in a struggle for his own existence, and this explains the ordinary incidents of life. Moreover, among the higher animals at least, it commonly happens that the advantage of the individual is identical with the advantage of the race. When an animal is competing with adverse conditions or with foes for its own life, it is at the same time competing for the opportunity to leave offspring, and the struggle for self and the struggle for the species are identical. This fact has quite generally concealed the deeper one that natural selection is in reality directed toward the race rather than the individual. It is when the two interests come in conflict, as in the case of the salmon and many others that might be cited, that we see how ruthlessly nature sacrifices the individual to the good of the race. The former is merely an incident in the history of the latter.

This law, that places the race first, frequently leads the individual to sacrifice his interests in a

manner which can have no meaning to him. From his standpoint there is certainly no reason for his yielding his own interests and comfort for the unborn generations of which he has no knowledge. This sacrifice of self has sometimes been called *altruism*. But among animals it does not properly deserve this name, since it is wholly unconscious, and genuine altruism must appreciate its sacrifice. While the struggle for self-interest is sometimes a conscious one, this struggle for the good of the race is commonly unconscious. Most animals that sacrifice so much to their posterity never see their offspring and know nothing about them, commonly not even knowing the possibility of their existence. They yield to blind instinct, not to reason. The salmon is not drawn into the river because she feels it is the best place to deposit her eggs, for she never sees her young which hatch long after she may be dead. She faces the danger of the river because she is driven by an irresistible impulse which though not understood is blindly obeyed. Such an impulse is an instinct, and its origin must be included under the explanation of the origin of instincts in general. It is significant to note that the instinct that leads to the perpetuation of species is the most imperative of all instincts. Whatever sacrifices it demands are freely given. Among low and high animals alike this instinct is ever leading to individual sacrifice, wholly inexplicable from the standpoint of the individual, but readily interpreted from that of the race. Among insects the yielding to the instinct may lead to exhaustion and death, and even in man the sexual instinct has always been one of the most potent influences in society.

Since this sacrifice of individual interests to the

life of the species is usually an unconscious one, to call it, as Drummond does, the "struggle for the life of others" is almost sure to be misleading. Most animals never see their young, and may die before they are born. Each animal, so far as he is engaged in a struggle with nature is battling for his own existence, and not for the existence of others. His instincts may lead him to conduct this battle in such a manner as will prove a benefit to his offspring, but he is unconscious of the fact and is eager only for his own interest. With a few of the highest animals, it is true, this principle develops into the mother's love, in which the spirit of sacrifice is accompanied by a knowledge of and interest in the offspring. But this mother's love is only a small part of the more fundamental law. It appears only after the young is born and is always fleeting, while the sacrifice for the life of the race is permanent. The term, "struggle for the life of others," therefore, is apt to be misleading, and it is better not to use the phrase, but simply to recognize that natural selection is really directed toward the preservation of the species rather than the individual, and that the latter is readily sacrificed when his interest comes in opposition to that of the race.

This principle of the struggle for the life of the species is one foundation stone upon which a moral nature may have been built; but it is in itself insufficient. It might lead to a sacrifice for the good of the race. But mankind has certainly set up standards of ethics which could not be comprehended by this general force. Like other animals, man has a desire to enjoy himself, and, as with other animals, his reproductive instincts are among the strongest that influ- ✓

ence his actions. But our ethical standards frequently bid us to restrain both of these instincts. Our ethical standards tell some to sacrifice their own pleasures by giving their life to work in the slums for people vastly their inferiors; they may direct us to share our food with others, even when we may be starving; they constrain us to control the reproductive instincts except under certain specified conditions. No such requirements are placed upon animals by nature, for their instincts frequently impel them toward the very things that our ethical nature forbids us. How has man developed impulses urging him to act so contrary to the rest of nature? Clearly, some other foundation stone is needed besides the struggle for the life of the species. A second factor seems to be the social instincts.

SOCIAL INSTINCTS

While it is true that competition is a universal law of life, and that the general result of competition is to lead toward enmity and isolation, it is also true that among the higher animals—and with these only are we concerned—we frequently find evidence of pleasure taken in one another's company. Even among the lower animals we not infrequently find individuals living in companies, like a swarm of flies. It is doubtful, however, whether this can be called the beginning of social instincts. But it is also certain that among many of the higher animals below man such instincts are common. Higher animals do not always respond wholly to the pleasure of the moment, but are somewhat influenced by remembered, or perhaps by anticipated pleasures. This leads to their associating in companies. Fishes live

in schools; birds flock together, and one cannot watch a flock of birds without being convinced that they take pleasure in each other's company. Among mammals examples are too well known to need attention. While some, like lions or tigers, live solitary lives except at the breeding seasons, most mammals live in companies. These groups are doubtless generally for the purpose of protection, but this does not make them any less significant. That the members of such groups take pleasure in each other's society is evident to anyone who has taken the trouble to watch a cage of monkeys, or to notice the friendship of dogs. Animals have a deal of altruism mixed with their egoism. While these social instincts are by no means universal, we find them especially well developed among the higher animals. As we approach man, among the monkeys, we find such instincts not only well developed but in some respects closely resembling the social habits of low savages.

The struggle for the life of the species and the social instincts are the two foundation stones out of which seemingly the moral sense must have been developed. At all events, these are the only two animal instincts which seem to promise any aid in accounting for the human moral nature. But it is palpably evident that the instinct that leads to the preservation of the race and the social instinct are neither one, nor both together, similar to the moral nature of man. The ethical nature of the human race has passed far beyond these instincts into totally new realms of activities. But it would seem to be a fair statement of the case to say that while these instincts, for race preservation and for social life, are innate, and hence due to organic inheritance, the rest of the

complicated human moral nature has been built upon them in a purely artificial way; by which we mean that it has been built as the result of the accumulation of a long series of acquired characters transmitted by social heredity. To understand this it is necessary as the next step in our discussion to notice how from these two fundamental instincts the ethical conceptions of modern man may have been derived. The data upon which the conclusions are based come from studies of primitive races as well as from the growth of the child's mind. In tracing this history we must divide the subject into two parts: 1. The development of moral codes. 2. The development of the moral sense.

EVOLUTION OF CODES OF MORALS

The Family.—For any advance toward an ethical nature above that shown by the simple instincts mentioned we must look first to the conditions of the human family. The moral sense always involves duties; and for animals living in nature there are no duties, unless we count the instinct for reproduction as implying a duty. Among animals each individual looks out for himself and, as a rule, neither gives aid to others nor expects it from others. Each is attracted to that which pleases self and is repelled from that which hurts self. Pleasure and pain are for them the only good and ill. We cannot regard the instinct found among low animals to sacrifice themselves to the race as constituting a duty, since the sacrifices are unconscious. Among the higher animals we find a few birds and mammals among which the mother may, for a few brief weeks, consciously yield her interests to those of her helpless young.

This may perhaps be the beginning of duty. But it appears only when family life begins, and it is not found in the life of animals in general. But it does suggest to us the line along which we must look for the beginning of duties, and points to family life as the beginning of ethical obligations.

Family life among animals is rare; but with man such a relation is universally organized and with it new conditions arise. When family life begins the individuals are placed in new relations to each other. Each must live his life without too seriously interfering with others, otherwise the family will break to pieces. This necessitates restraint, and with it obligations. The head of the family feels that the family is his property. Among primitive races he has perhaps either bought and paid for his wife, or has won her by fighting, and hence he can demand of her what he will. His children too are his own property and he can dispose of them as he pleases. For long years they are dependent upon him and must obey his word. The wife knows that she is owned by her husband and that her happiness, and even her life, is dependent upon his pleasure. She knows that unfaithfulness to the obligations that custom places upon her will mean her death. To be sure, these obligations may be of the loosest kind, sometimes binding her to her husband only on certain days of the week, and perhaps allowing her to confer her favors anywhere with the consent or frequently with the command of the husband. But whatever these obligations are, their infraction means trouble or death. The children too learn that they must not follow their own caprice, but must yield to the commands of their parents. The husband on his part

learns that unless he fulfills his part of the family obligations he will soon cease to have a family. Thus each person in the family comes to live a life somewhat limited by his relations to others. Here is manifestly the foundation of duty.

The question of the origin of the family may best be postponed to a later chapter. At this point we notice only that the family with its duties was the beginning rather than the end of development. The process of reproduction would of itself increase the size of the family, and as the children themselves began to have offspring the natural group would soon come to consist of a large number of individuals connected by a common family bond. Such growing groups might perhaps sometimes remain together as a unit, or they might perhaps have soon broken to pieces. We know too little of the history of early peoples to be able to determine which was more common and we know nothing that will tell us what was the primitive condition among men. But this much we do know. After a time groups larger than families, which we call *clans*, or *tribes*, began to be formed. Sometimes these clans seem to have been overgrown families, while at other times it seems that they were composed of the union of families at first distinct and isolated. But whatever may have been their origin, groups of families appeared in all races of men, or at least in all races that showed themselves capable of development. The few races where such larger communities failed to appear have remained the lowest of all the races of men.

The Beginning of Duties.—All evidence points to the conclusion that the earliest condition of the human families was one of constant hostility to all other

families, although there was more or less harmony among the members of the same family. But as soon as families began to unite to form larger groups the earlier condition of feuds and warfare between families would surely be fatal to any union; indeed, large associations of men would be impossible until there was some cessation of the hostilities that at first plainly existed among families. Amid the constant warfares which were going on among primitive tribes and clans those groups of men which had a union strong enough to enable them to act as a unit would have exceptional advantage over those in which concerted action was not possible; and as a result natural selection would soon leave in existence only those which had been able to unite into compact masses. Since union would be impossible unless the inter-family feuds should cease, selection would in time preserve those clans where the original family hostilities were in a measure checked. Moreover, man, with his growing intelligence, perhaps began to realize, that success against a foreign foe was dependent upon unity, and that this in turn was dependent upon the disappearance of the family hostilities which seem to have been the normal condition of early man.

Under such forces there gradually arose methods of settling without open hostility the quarrels that were constantly arising among families. An injured family would agree, perhaps influenced by a disinclination to fight a more numerous family, to accept payment for an injury instead of demanding retaliation in kind as was the primitive method of settling disputes. There were sometimes definite payments specified for a murder and other payments for the injury of stealing a woman. Such peaceful

methods of settlement were a necessity for a lasting union, and in times of common danger, when the need of union was apparent, they certainly did arise among intelligent men. Likely enough at first the old system of family feuds and retaliation in kind would appear again when the immediate danger was passed and the necessity for union became less apparent. But even though temporary, such unions gave an impetus toward wider range of duties and brought into existence a broader system of customs which regulated the relations of families to each other. As these unions of families became more lasting, not breaking up at the close of the pressing need, the customs became more permanent and eventually developed into a code of unwritten law for these early tribes. Quarrels that could be settled by resort to tribunals or to kings ended commonly without conflict. Wars still arose, largely because there were no tribunals for the settlement of the disputes of kings; although sometimes even these were avoided by resort to religious tribunals, like the Druids of the Gauls or the Roman Church of later centuries.

Morals and Laws.—There thus arose two different sets of customs regulating human relations, both involving restraint upon the free action of individuals. The one arose within the family and produced what we commonly call *morals*, while the other arose outside the family and eventually developed into *law*. The former have never been definitely formulated but have been based upon custom. The latter have acquired a more and more definite meaning in successive stages of society, and have shown a general tendency to be distinctly formulated. They were at first probably rules that had force only in times of

war, when union and concert were necessary. But slowly they acquired an application to times of peace, and eventually became the unwritten and then the written law of the races. They made permanent society possible. The origin of society was thus the appearance of restrictive laws that regulated the relations of different families.

These two classes of regulations from the beginning till to-day have had different foundations. Family customs, though perhaps more or less founded upon fear of the results of disobedience, have been very largely based upon sympathy and love. The willingness of the parent to yield his interests to those of his child, and the child's obedience to his parents, have arisen from mutual interest and feelings of affection. But the primitive laws that regulated external relations had nothing to do with these gentler principles. They were devised solely to reduce the evils that arose from the natural law of retaliation and were forced upon man by the necessity of making as firm unions as possible. If the notion of right and wrong entered into the question of relations within the family, a question which we must consider presently, it is certain that ideas of right and wrong had, at first, nothing to do with the formulation of laws. No conception of right or wrong, of justice or injustice entered into the formulation of the rules regulating families. The reason why one family in the primitive condition of mankind demanded retaliation for an act of violence was not because of the wrong done, but because of the injury received. This is abundantly proved by a host of facts. Early law, for example, recognized no distinction between intentional injury and accident.

If one person killed another by the most unavoidable accident, exactly the same payment was demanded as if it had been premeditated murder. The amount of payment demanded had reference wholly to the injury done and not to the wrong committed. If a man should violate the daughter of another, he should pay a certain sum on the ground that he had depreciated the market value of the girl. Over his slave or his own daughter he had unlimited freedom, the law failing to recognize such acts, since no other person was injured thereby.

No one who reads the condition of early law can fail to be convinced that there was practically no attempt made to secure justice, and that the rightfulness or wrongfulness of an act hardly entered into the conception of law. Laws were designed to keep the peace and not to punish wrong. Frequently they did not even try to pay for the injury that was done. When we remember this we can understand early types of trials which seem so strange to us to-day. In some races, even till recent times, a trial consisted in summoning witnesses to swear to their belief that the accused was innocent or guilty; and if there were more witnesses who thought him innocent, he was acquitted, while a majority on the other side would convict him. Absurd enough such a procedure appears to us, but it was perfectly logical at an earlier period. Law was designed to keep the peace, and the trial was not looked upon as designed to show the innocence or guilt of the accused, which was wholly a secondary matter. The trial showed how large a band of followers could be depended upon to support either side, and this showing would take the place of an

actual resort to arms. The method of distributing justice to-day in some of our most enlightened nations, as shown by the Dreyfus case, bears manifest evidence of such a desire to keep the peace rather than to determine the justice of the case.

Law was thus established as a means of regulating payment for injuries. The only justice recognized was that each should be held responsible for the result of his actions, wholly irrespective of his motives. This is exactly the kind of justice that nature measures out to the individual. The inexorable laws of nature pay not the slightest attention to motive. The man whose leg is broken trying to save the life of a friend suffers exactly as much as if it had been broken in trying to take his life. Motive and justice play no part in nature's laws.

It was natural enough, therefore, that the artificial law developed by mankind should have a similar aspect. But as society developed new notions entered into the conception of law. Louis XII of France improved the conditions of things by introducing into the courts the force of reason as a substitute for the force of arms; but he made no special attempt to make them courts of justice as we understand the term. More recently attention has been turned from the act to the motive. Justice, as we understand it to-day, insists that in the administration of our artificial laws each shall, so far as possible, be rewarded according to his motives and not simply his acts. This is quite a new idea in the history of the administration of law and we are still far from realizing it to perfection. We frequently say that our courts are travesties of justice. The ability

of a brilliant lawyer to obtain decisions entirely contrary to plain justice reminds us forcibly of the conditions of the courts of Louis XII. Even when the laws are legally applied we know too well that justice is rarely done. The really guilty man goes unpunished while the weak tool suffers for the deed. But even if we should rise above these failures in the application of justice, our laws are still, of necessity perhaps, based upon the idea of the injury done rather than the motive concerned. A man who lives a life of petty meanness, causing the suffering and ruin perhaps of hundreds, would receive, if rewarded according to his motives, a much more severe punishment than one who in a fit of anger kills a fellow man. But the law punishes the latter with extreme severity, while the former likely goes through life untouched by law. Justice is an ideal toward which we hope our system of public law is tending and which we think of as measured out in a final judgment by an omniscient judge, but which is far from realized by human law. But in the development of public law there is a clear progress in this direction. While courts are still largely a means of regulating the payment for injuries done, either intentionally or unintentionally, we are recognizing more and more that their ultimate purpose is to measure out justice rather than retaliation and payment.

While morality, as we have defined it, was originally confined to the family relations and law to tribal relations, this distinction soon began to break down and moral codes began to extend beyond the family bounds. Family customs, even though having their origin partly in fear, were largely developed from the feeling of love, and so long as love and sympathy

were dominant no formal rules were needed for the guidance of men. Law is not needed to regulate the family relations except in cases where there is a lack of love on the part of members for each other. For centuries public law paid no attention to family relations, upon the principle that the feeling of mutual interest should be sufficient for their regulation. Law was needed only in external relations where the natural attitude was one of hostility. But as larger and larger organizations appeared men were brought into wider and closer contact, and as this contact became more intimate the sympathies of man extended beyond the limits of the family. He came to extend to persons outside of his family the same kind of feelings of love as had previously been confined to his own family, though, of course, less intense. The exclusiveness of family life disappeared and mutual interest began to broaden. Duties and obligations were recognized as binding quite independent of law and based upon a widening brotherhood. The scope of actions included in the moral code thus slowly broadened.

The Broadening of Obligations.—When the clan took the place of the family as the largest unit of men, the obligations originally binding only upon the family extended to the clan. When the tribe succeeded the clan and when the kingdom succeeded the tribe a similar expansion of duties occurred. But with all the broadening of obligations it is significant to notice that they never extended beyond the limits of the special group of which each person was a member. No obligations were recognized toward the enemy. To love one's friends and hate one's enemies was the rule. The only question was as to who was

one's enemy. At first the enemy was anyone belonging to another family. Later it was the member of another clan or tribe. Later still it was only the foreign kingdom or nation, and last of all the foreign nation only in times of declared war. But in the whole history wherever man recognized an enemy he felt himself free from obligations toward him. Aristotle taught that the Greek had no more obligations to barbarians than to beasts.

So far as principle is concerned we do not stand upon a higher plane to-day. To be sure, our sympathies have broadened and we recognize obligations extending over a much wider range. We are beginning to speak of a universal brotherhood of man, which involves, of course, universal obligations. But we must remember that war was the universal condition of early people, and even to-day, let a period of war arise, and we find our sense of obligation toward the enemy vanishes at once. Even in times of peace our methods of diplomacy are based upon the laws of hostility rather than friendship. In settling questions of diplomacy the principles of justice and honesty admittedly play a very small part. We are hoping for a time when justice shall settle international disputes, but it has not come yet. In diplomatic contests each party endeavors to gain his point by every possible advantage, and does not hesitate to use force, trickery, argument, or deceit, and expects similar treatment in turn. This actual state of affairs to-day shows us that in principle we are upon the same plane as early man, with love for our friend and hate for our enemy. The difference lies simply in our having extended the limits over which we apply the name "friend." To-day nation bears to

nation the same relation that the primitive savage bore to his fellow. The command to "love your enemies" is a radical break in the development of morals, a world-wide departure from the previous condition of the ethical nature.

We have no space to develop this topic further and must leave it with this sketchy outline. Brief as it is, our outline will serve to illustrate the point which we wish to emphasize. The present condition of the morality of nations has been a matter of slow growth and development. History clearly shows that moral codes, which regulate the customs of mankind, have developed from the condition so low as to be hardly an advance over the life of the brute creation, and have come to their present state by a series of traceable steps. Obligations began with the family and have grown and expanded with the size of the organizations of men. So far as concerns codes of morals there is no break of any significance separating the highest from the lowest man.



CHAPTER IV

THE EVOLUTION OF THE MORAL SENSE

THE NATURE OF THE MORAL SENSE

WE have not yet reached the center of the question, for we have thus far traced only the development of codes of morals and have not touched the question of the moral sense itself. Conscience does not exist among animals, but with man it frequently proves to be the mightiest force that controls his actions. Is this moral sense also a matter of social inheritance or is it a part of his organic nature, and derived by germinal heredity?

From the origin of moral codes as outlined in the previous chapter, it would follow that right should always be that which is customary. The right would necessarily be the average opinion of the race, and wrong would be anything contrary to the average opinion. But all systems of ethics that base the moral sense upon custom are unsatisfactory failures. We clearly recognize a difference between the right and the average opinion. The martyr finds the right to be something very different from average opinion. The principles outlined in the preceding chapter could never have produced martyrs. We certainly recognize a difference between the right and that which appears expedient, or between the right and that which would meet the approbation of our companions; and we recognize in conscience something which demands obedience, even though it means sacrifice of life. Natural selection may have pre-

served those clans that developed codes of morals, leading to unity, but could it have developed a moral sense which urges one to sacrifice himself, his home, and even his country to an ideal?

But it is exactly such a feeling that must be accounted for in explaining the moral sense. Upon the question of the development of codes it is not likely that there would be much difference of opinion. That man's idea of what is right and what is wrong has been subject to a gradual elevation is simply a matter of history, attested equally by secular and religious grounds. The real question comes when we ask for the origin of the impulse that impels man to do right, whatever be the consequences. It has generally been held that however low the stage of moral codes among savages, they always possess a moral sense. While savages regard as right many acts which we condemn, still they do recognize some acts as right and some as wrong, and hence have a moral sense. In this they are in sharp contrast to animals, for among the latter the moral sense is admittedly absent. To what extent is it possible to account for the origin of this moral sense as a social inheritance, and hence as acquired by each individual, and to what extent must it be attributed to organic inheritance and therefore innate?

This question is evidently twofold, for it resolves itself into the two questions; (1) How did the moral sense arise in primitive man? and (2) How does the moral sense arise in the individual? Certainly, the babe is born to-day without any conscience, and equally sure is it that conscience develops in the growing child. If we accept the theory of a natural origin of man, it follows also that at one time in

his early history man must have been without that which we call moral sense. How came mankind to develop it later? These two questions are clearly very closely associated. If it should appear that the moral sense develops in the child as the result of social inheritance, it would follow that a similar explanation must have held in previous generations; while if it should appear that this distinctly human attribute has come by organic inheritance, that it is innate rather than acquired by the individual, then it must find some other explanation of its origin than social inheritance. In our discussion it will not be possible to separate completely these two questions, since they are so closely interwoven. It will be our clearest line of thought to consider first the question of the origin of the moral sense in primitive man.

THE MORAL SENSE IN THE PRIMITIVE FAMILY

Evidence as to the condition of the moral sense in the human families of prehistoric times is quite lacking, and our only approach to it is in the study of the customs and traditions that literature has handed down to us. So little does this give that we can practically neglect it except as confirmatory to the conclusions reached from other sources. The only source of evidence open seems to be the study of the life of the lower races of man still living, and the endeavor to reconstruct from their habits of thought the method by which what we call conscience in the higher races has been developed.

Moral Sense in Low Races.—The chief characteristic of the moral sense is that it is an impulse to obey certain laws or customs, no matter what the result. Even the lowest families of mankind show some

customs which the members of the family implicitly obey. But what sort of a feeling is it that urges obedience? Is it a sense of duty, that is, a moral sense, or is it some other impulse? Some of those who have tried to analyze the lives of savage races tell us that in low tribes of man there is nothing that can properly be called a moral sense, not even in rudiment; and that these savage families are not controlled by any idea of right and wrong, but by quite different motives. Fear of punishment, pride and love of approbation, as well as dread of disapprobation, love and sympathy, together with pleasure in one another's company, constitute the real motives. The idea of right and wrong, we are told, does not exist. Such impulses do not particularly separate man from animals, for the higher animals are influenced by each of these motives. A tribe of monkeys lives in harmony and is ruled by customs which are obeyed and apparently obeyed from exactly these motives of fear, pride, etc. If there are no other motives than these among primitive families, there is no great distinction here between man and animals. Such motives are surely innate, and are implanted in the human nature, as in the nature of animals, by organic inheritance. Primitive man differed from other animals in showing an unusual power of forming lasting unions; but if the motives underlying the customs adopted were only those of fear, pride, love, etc., he was not in this respect much better endowed than the animal world.

Motives Involved.—Here, then, is a fundamental question. Is it true that such people are actuated only by these impulses, or do they have a real sense of right and wrong? If the guiding principle is only

fear or love, then we cannot say that such peoples have any conscience; but if there is any sense of oughtness present, independent of expediency, then we must admit the existence of a moral sense, even though weak and undeveloped. It is extremely difficult to answer this question. Of course, concerning primitive man, we can say absolutely nothing, for we know nothing about him. Our only evidence must be obtained by the study of those races of men that stand lowest in the scale of civilization, and even this must commonly be based upon chance impressions of travelers, who are generally incapable of answering such a delicate question; indeed, travelers are usually ignorant that such a question even exists. That the members of the lowest savage races are impelled to certain lines of action by some kind of impulse is clear enough. But what that impulse is, and whether it is different from fear or love, it is impossible to answer. One visitor who sees the looseness of sexual relations among certain races reports that there are no rules in this respect, while another finds among the same people definite regulations in this matter, which are adhered to even more strictly than are those of the civilized races. One traveler, seeing a savage father, in a sudden fury, dash out the brains of his child who had displeased him, concludes that parental love is nonexistent, while another, who studies the lives of the same savages, concludes that the family life is full of affection for the children. One person, noting the prevalence of infanticide, concludes that parental love is very weak; another insists that infanticide is a means of showing parental love, since it is the only method they know for preventing the lasting suffering which would come

upon their living children by allowing the family to become too large, and that they are thus actually instigated by a love for their children rather than by a lack of parental affection.

It will probably never be possible to determine whether it is proper to call by the name of moral sense the rather weak impulse that leads the savage to recognize certain obligations. A European, who is himself filled with high motives of duty, will be likely to read his own motive into the actions of these savages when he comes to live with them. He will conclude that they are influenced by feelings of right and wrong even when they follow lines of action which to him seem wrong. Such a person would tell us that the savage is just as truly following the dictates of conscience when he kills his infant child as was Abraham of old when he offered Isaac for sacrifice. Perhaps this is correct, but all that we can say positively is that some motive urges him to the action. Another man visiting the same tribe, finding them so lacking in what he regards as a sense of wrong, and finding such freedom of robbery and murder, and perhaps such an absolute lack of honesty, concludes they are destitute of moral sense and act only under the influence of fear, pride, and greed. He, again, may be right. Even if we were thoroughly acquainted with savages, it might be impossible to determine what sort of impulses influence them, and whether their moral sense is anything more than that which impels a dog to obey his master.

Thus even among the races which stand at the bottom of the scale some coercion to certain lines of action is evident; but it is significant to notice that it

concerns only such acts as affect the members of the immediate family. An animal is commonly impelled to do what is pleasing to him and to refrain from that which is unpleasant. Man, as a member of a family, is occasionally impelled to check his personal impulses and to do something for the good of the family rather than for self. That the interests of those outside his family should influence his actions never enters the head of the low savage. If he has any sense of right and wrong, it is confined to his own family. A Bushman, when asked to mention a *bad* action, said it would be bad for some one to steal his wife; when asked to mention a *good* action, he said it would be good to steal the wife of some one else. Robbery from another family is praiseworthy since it increases one's possessions; but the idea is wholly self-centered and does not extend beyond one's immediate family.

Upon this point of motive must hang the issue of a moral sense among savages. So far as concerns obligations to others, the step from the highest animal societies to the lowest human family is a slight one, but it is one upon which depends the permanency of the family. Those human families were preserved in the struggle for existence in which there was the greatest amount of mutual reliance and unity, and this occurred only in such families as taught their children obedience. The child, during his early years, when the brain is plastic, learns the few customs upon which the preservation of the family is based. Love of approbation urges him to follow the habits of his elders and it is inevitable that he should come to manhood with a mental nature in which these habits have become a part. He followed these habits

blindly, just as in our communities we follow fashion in regard to our clothing; and it is possible that such adherence to custom on the part of the savage involves no more of moral sense than does our own habit of wearing clothes according to the prevailing fashion. All that we can affirm positively is that among the low races of men there is some sort of feeling that imperatively commands the individual to adhere to certain customs, and the customs thus enforced seem calculated to produce the most harmonious results. Families in which this adherence to customs does not occur could make no headway against the unity of action of the harmonious family, and natural selection would soon leave only those in which such impulses have played an important part. Although the original content of this feeling may not be certain, we must consider in succession various impulses which have doubtless contributed to it, noticing how the lower emotions eventually grade into the higher ones. Fear and pride we have noticed, and we come now to emotions more distinctly human.

Sympathy.—Although it does not by any means constitute a satisfactory foundation for ethics, sympathy has played a prominent part in the growth of the moral nature of man. Whereas animals, as a rule, respond only to the pleasure of the moment and occasionally to remembered or anticipated pleasures and pains, man has learned to respond to the pleasures and pain of others. He has acquired the habit of acting in such a manner as will give pleasure and happiness to others even at a sacrifice to self, and he has learned more and more to repress actions that give unhappiness to others. This feeling of sympathy was doubtless at first confined to the members

of one's own family, as may be recognized from the attitude of the Bushman above mentioned; but later it broadened out to include other families, and it has finally expanded to include more or less forcefully all mankind. To-day we speak of the common brotherhood of man, and we are sending our shiploads of food to the starving people of Russia or China, recognizing as our brothers those who live on the other side of the globe as well as those on the other side of the street.

As this sympathy has broadened it has also deepened. The pleasure we take in the happiness of others and the sorrow we feel in their sufferings have become more and more keen. This growing sympathy has by no means reached perfection even yet. Even to-day it is insufficient to prevent the oppression of the poor by the rich, or to prevent the corresponding marks of enmity of the poor against the rich. But it has been growing constantly, and in spite of the glaring evils which appear in society, leading to antagonistic class organizations, to strikes and lockouts, still, on the whole, the wealthy class has to-day a greater sympathy for the laboring classes than at any other time in the history of civilization. This growing sympathy has organized hospitals, which were formerly undreamed of; it has organized numerous institutions of charity; it has improved the condition of woman. It is to-day bringing the wealthy to recognize the existence of "the other half" and to endeavor to improve their condition. It has led to the highest phases of the ethical nature that have been yet developed. It is true perhaps that with this developing sympathy there has hitherto been an unfortunate tendency to substitute

charity for justice. We sympathize with the "other half" and try to alleviate their discomforts without striking at the root of the evil and removing the social conditions that make that "half" a possibility. Our social conditions too frequently deny to our brother what he has really earned, and we have been content to try to make this up to him by giving to him some of the things which we happen to have in our possession, though we ourselves may never have earned them. Our courts are frequently travesties of justice; and recognizing this, we try sometimes to compensate by giving to the unfortunate what he has not earned and perhaps does not desire. But all this is simply an indication that we are far from having reached perfection even in the matter of sympathy, and one cannot be really acquainted with history without realizing that each century has seen an advance in these respects. But while the grade of morality of the higher races surely stands on a higher plane to-day than in any earlier century, it is also a fact that our ideals advance faster than the race can apply them. As a result, in practical morals the race seems farther from its ideals to-day than ever, since those ideals keep so much ahead of practice. Consequently, we not infrequently find those who tell us that the world is growing worse instead of better. If such persons would compare the actual conditions of to-day with the actual conditions of earlier centuries, instead of comparing them with the will-o'-the-wisp ideals, no conclusion would be possible except that there has been and still is a constant advance.

The Sense of Duty.—Neither fear, love, pride, nor

sympathy, nor all these together, constitute a moral sense, even though they may have been the foundation emotions upon which it was built. In some way and at some time there was taken a new step which led eventually to the sense of duty and the idea of right and wrong. Of course we can, from the nature of the case, have no direct evidence as to when or how this new conception first made its appearance in the early history of mankind. We can only study how it develops in the child and make certain deductions from this and other data which may lead us to a fairly clear-cut theory upon the subject. The discussion as to the origin of this moral sense or conscience has long been a favorite one for philosophy, theology, and science as well, and it is hardly possible to add much to the discussion. But in the light of our general subject certain aspects of the discussion need restatement and reapplication.

We can best present the phase of the matter which bears upon our subject by first trying to analyze the method by which the idea of right and wrong arises in the growing child. At the beginning of a child's life he is, of course, without any moral attributes. He does not even have sense enough to obey anything, simply trying to gain the satisfaction of his desires. As his mind begins to develop he early learns to obey his parents. The impulses that urge him to this are clearly twofold. He is partly influenced by fear of punishment or the displeasure of his parents and partly by a love for them and a desire to please. Clearly enough, in the very young child no idea of right or wrong exists. The very methods adopted by the parents to teach obedience prove this. Sometimes the fear of punishment is

held before him; sometimes he is told that it will make his parents "feel badly" if he does a certain thing; sometimes he is urged to do it "to please mother"; but the young child is never urged to obey because it is right. By these means he slowly acquires a feeling of some forces outside of his own inclination that guide his actions, a feeling that in earlier life he did not have. One of the next steps in this development is learning to imitate a model. To imitate their elders seems to be an instinct implanted in all children, and very early each begins to imitate unconsciously the actions of those around him. Naturally his first model is likely to be his mother, with whom he is best acquainted. She thus becomes an ideal and the argument that "mamma would not do it if she were you" begins to have strong force with him, so that he comes to pattern his life after hers. A little later he is likely to choose, quite unconsciously of course, a model outside of his family, always, however, one with whom he is brought into more or less close contact. This model may be a school teacher, a Sunday school teacher, a soldier, or, indeed, any other person that attracts his admiration. But each model in turn proves unsatisfactory as his intelligence grows, for unconsciously he finds flaws in them all. Then he begins to substitute an imaginary model for an actual one. Perhaps it is a historical character in regard to whom only a few facts are known, so that ample room is left for his imagination to fill out the remainder and thus create out of the personage just the kind of bundle of characters he pleases. Sometimes the model has no basis even in history, but is pure fiction, a pure ideal, or, as he sometimes calls it, "his other

self." Of course he does not think of these individuals as patterns to be imitated; but in the life of a child this is certainly the method of the development of the conscience, for conscience is that feeling within, which tells him to do as his model would under like circumstances, whether that model be his mother, his teacher, his inspired writer, or his God.

It is, of course, manifest that in time the idea of right and wrong comes to be applied to the different types of action. The method by which this new thought arises seems to be fairly simple. As the child matures he inevitably comes to recognize certain lines of action toward which he is impelled by the various influences which are at work forming his mind, and another set of activities which these same influences forbid him to perform. In other words, he comes to feel that there are some things which are to be done and others that are not to be done. He is then taught by parents or others that it is *right* to do the one and *wrong* to do the other. These are at first only words, of course, and are applied simply to the lines of action which he has been taught to follow or to shun. He certainly does not at first recognize in them any of the meaning that he subsequently puts into them. To the very young it may be thought just as wrong to dress unfashionably or to soil one's clothing as it is to tell a lie, since both actions bring a reprimand. But his teaching gives him a more and more definite thought of a right that should be done and a wrong that should be avoided; and from the time this idea is firmly fixed the further development of the moral nature consists in the refining of the conception and the classification of actions in one or the other of the

two classes. The method of classifying actions into right and wrong is widely different in different men. The differences are primarily due to environment which produces one type of classification for a boy of the slums, another for the millionaire's son, one classification for the Englishman and another for the Turk. But in each case whatever is eventually placed in the category of right has the imperative demand of conscience for its support.

THE DEVELOPMENT OF THE MORAL SENSE IN THE RACE

The method of the development of a moral sense in the child may clearly serve as a guide toward an understanding of its development in the race. Each individual at present certainly acquires his ideas of right and wrong by being taught. Our problem is therefore to account for the race conscience, or, more specifically, to account for the fact that men ever developed any ideas of right and wrong at all, which they could then hand on to their children by teaching. Data as to the development of this conception of right and wrong among primitive peoples come partly from recorded history, partly from the customs of low races, and partly, we must recognize, from pure theoretical argument as to what seems the most probable. The most natural explanation of the origin of the moral sense seems to be something as follows:

The start, of course, must have been the family duties already mentioned as necessary to produce family harmony. The strength derived from unity preserved certain families more and more permanently, and the individuals in the families thus came to pass a long life under one another's influence.

The child of primitive man, from the time that the family became lasting, was from earliest infancy placed under the influence of his elders, who became his teachers. From the dawning of his intelligence and during all the early years when his mind was most plastic he was sure to be molded by the influence of those around him. During these years one great lesson was both consciously and unconsciously taught him, namely, that he *must obey* not only the commands of his parents, but must yield to the public opinion of the tribe of which his family formed a part. From very early infancy the child, like the animal, was influenced by expressions of praise and blame and, since public opinion praises one line of action and blames another, the child, even among primitive peoples, must have been urged to follow one line of action and avoid another. By imitation he learned to act as his parents acted, and later as others around him acted.

In this way the child soon learned the force of authority, finding through his slight experience that in his family all yielded to the family head. Later he found that the family head yielded to the commands of the tribal chief, and all these facts so molded his growing mind that by the time he had become an adult the idea of obedience to authority was thoroughly impressed upon him. He gradually developed the notion of submission to authority, perhaps the most important mental trait controlling his evolution, and constituting the foundation of ethics and religion; for conscience is surely founded upon the recognition of the *necessity for obedience*.

Sympathy and love were internal forces, and perhaps the willingness to yield obedience may have

been an instinct, and hence due to organic inheritance. But when primitive man began to yield to the impulse to obey there began to be exerted upon him external forces urging obedience, and thus social inheritance began to exert its influence in molding him. Furthermore, since this pressure came from without, it inevitably grew to extend beyond the limits of the family as soon as the family became a member of a clan or tribe. The individual first learned to obey the family head, resenting the interference of outsiders. But, as the tribe developed customs which served to keep the peace between families, the individual would inevitably feel the same influence impelling him to obey tribal customs. If his family had decided to accept a payment for a murder instead of adopting the more primitive method of retaliation, there would be exerted upon the individual a most powerful tribal influence compelling him to adhere to the family agreement. The same feeling of authority impelling obedience would be felt, and in time the simple agreements which were entered into by families to preserve themselves against their common enemies would receive the same sanction that had been at first given to the family relations. Since he felt himself forced to obey all these customs, the individual would inevitably in time develop a sense of obligation, that is, *duty*, in connection with them. Hence would arise the impulse to obey public law which would, however, always be less keen than the impulses to obey family rules, because they would be less frequent of application and less remote from his daily life, besides having been acquired at a later period in his life than that at which he had developed his ideas of family

duties. Such a condition appears universal in all savage tribes, for there is none that does not show this sense of obedience to authority to some extent. Whether there is always any sense of moral obligation connected with it is not by any means sure, and very likely at the outset such a feeling is founded upon love, pride, fear, and coercion. But although obedience may have at first been thus produced, just as soon as it became imperative and binding it would in a measure change its nature. The sense of coercion would become a sense of duty. Out of the *must* would come the *ought*—two feelings which were probably at first indistinguishable in the race, as they certainly are indistinguishable in the mind of the growing child.

Origin of Conscience.—Such a force could not raise the individual above the average of his race. It would lead him to imitate others, and to follow the dictates of general opinion or the command of a superior, but his private conscience could not rise above public custom. Now the very essence of conscience is that it may act independently of public opinion, and demands obedience not infrequently in direct opposition to the customs of the race. If the sense of duty which arises from coercion, fear, love, or sympathy cannot rise above average opinion, something more is evidently needed to explain the moral sense in its higher forms. We may understand, from what has gone before, the origin of tribal customs and a sense of obligation to obey law; but how arose that conscience which impels one to stand against the opinions of the race, to resist law in favor of what he thinks to be right, even at the expense of suffering, and which, in short, fills us with the belief

that right is something wholly superior to custom, law, and, indeed, to any human standard?

The answer to this question would seem to be as follows: There is no such thing as race conscience in any proper sense, only a conscience in each individual. The race has never developed a moral sense, but each individual has developed his own, since he is born without it and shows none in his early years. Hence the question of the origin of the race conscience is only the question already discussed of the origin of individual conscience. The children of the earliest races which formed families, just as the children of to-day, must have found themselves subject to criticism from their superiors, and must have early learned that there was some standard of living which they did not reach. For some things they were blamed, for others commended, and they inevitably perceived that there was one standard to be condemned and another to be commended. What this standard was they doubtless did not know nor even consciously recognize its existence. But since the father or the chieftain or the family patriarch was the one to receive obedience, they came to be the embodiment of the standard to be followed.

How long it was before any further steps were taken in the development of the moral sense we have no conception. But in time the higher stages of conscience began to be possible as the social conditions advanced and became more complicated. When man isolated this standard even unconsciously from any actual person, and made it an *ideal* to be imitated, the step forward toward what we now call conscience was a great one. This ideal would then embody all the actions which his growing mind urged

him to obey for any reason good or bad. He would from that time begin to criticize self, to feel self-respect when he followed this imaginary model and experience shame when he failed to do so. So vividly has this model come to stand in the conception of the higher developed races that the individual comes to speak of it as his other self, his *alter ego*, by which phrase he means, when we analyze it closely, simply an ideal embodying all the characters which he thinks really belong to the best citizen that he can imagine. The other self is nothing but the imaginary ideal that actually would do the things which he feels that he ought to do but does not. From this point the moral sense acts wholly from within. The individual would now be impelled not from fear of punishment but because his other self commends his actions.

This is an immense step in advance and opens a new world of motives. The individual is now his own judge and criticizes himself according to an ideal. His own judgment of himself is much more rigorous than that which he gives to another, since he can judge himself according to his motives. His sense of duty now insists that his motives should conform to an ideal.

Right and Wrong.—The universal tendency of man is to form abstractions. From the consideration of blue, red, and yellow objects he forms an abstract notion of color, and this greatly aids thought. From the thought of many beautiful objects he makes the abstraction beauty. Neither color nor beauty exists in nature. In considering this line of actions, toward which he feels impelled by conscience, he adopts the same method. Feeling impelled to do certain things and to refrain from doing others, he has

come to recognize two classes of action, one which he is impelled to perform, and another from which he is to refrain. It makes no difference whether the impelling force was at first fear or love, whether it was from within or without, the two classes are distinct. Recognizing the two classes, he inevitably names them and thus forms the abstraction of *right* and *wrong*. The content of right and wrong concerns moral codes, but the recognition of these ideas, together with their authority, constitutes the moral sense. From this time these two notions more or less dominate life. Man feels himself bound to do right, and wrong is repellent to him. He seldom tries to analyze the reason why he should do right, any more than a child reasons why he should obey his mother. He simply feels that something within him impels him toward one line of action and repels him from another. The right action then becomes the reason for its own existence. Right conduct appears before him as the action of the ideal, and his knight is the man who, under all conditions, follows this line which he calls right. The relation is now reversed. The supposed actions of his ideal gave him his first notion of right; but now the right has been abstracted from his ideal, and this ideal becomes henceforth the person who, under all circumstances, does the right. Right action has become an end in itself. The highest stage of the moral sense has been reached.

When this stage is reached the individual may frequently go far in advance of the average of the race. That which is customary may no longer appear to be right to him. He has a classification of actions, and into one of two classes he places every act.

While the majority of men at any period in history will place in the category of right actions those which the general public approves, the individual may frequently make his classification differently. Considering the variation in the mental attributes of man, their different conditions and education, there is no difficulty in understanding why some individuals make classifications of actions differently from others. Most people believe amusements a necessity for healthful mental activity, but some, brought up under special environments, class all amusements in the category of wrong. Just as soon as the individual makes his classification his conscience impels him to follow his ideals. If he has classified amusements as wrong, his conscience will tell him to shun them with the same kind of repulsion which his neighbor feels for falsehood. If he has classified a lie as wrong, while his acquaintance, a man of the slums, because of his different environment, has regarded murder as sometimes justifiable, he will feel a greater loss of self-respect from telling a lie than the man of the slums will feel from committing murder. This murderer has a different classification of acts, for he may have an equal repulsion from certain actions which he classifies as wrong, as, for example, the betrayal of a companion in crime. Indeed, when the right is looked at as a thing in itself and man groups actions in two categories, as right and wrong, there is ground for endless variety in action. Now we see how some may be far in advance of the average opinion of the race. We see how the spirit of the martyr is accounted for, and we see how conscience may come now to lead the race onward instead of following it.

THE CONTENT OF RIGHT AND WRONG

One further question remains: If the ideal which embodies our ideas of right is simply an imaginary one, why is it that men's ideals should agree? The answer to this question is simply that they do not agree. The knight of the twelfth century was a totally different person from the knight of the twentieth century, and the ideal of the Chinaman is very unlike that of the German. It is true that in some respects there is an agreement among widely different peoples as to the attributes which belong to this ideal, and this agreement can be readily understood when we notice one fact. Among all nationalities and at all ages the ideal individual is the one who conforms best to the social ideas of his day. He is in general the best social individual, the one who best conforms to that class of actions that best fits him to be a member of his social organization. Impulses become moral only when directed toward society, since a hermit can be neither moral nor immoral. Now, certain fundamental factors are universally necessary if there is to be any society at all. A certain amount of truth and faithfulness toward one's allies is an absolute necessity if there is to be any union; and so we find that faithfulness to one's friends is universally one of the attributes of all people's ideals. Beyond some few fundamental conceptions of this sort, we do not find agreement among different people as to what is considered right and wrong.

Moreover, our opinions as to what constitute the best types of society are also changing, and it follows that our moral standards are also changing; for the ethical standard is always the conception of the best

member of society. Our *alter ego* is a watchman "charged to restrain the anti-social tendencies." As society becomes more complex with each century this ethical ideal is constantly acquiring new attributes, and these new attributes are mostly along the general line that we call altruistic. The ethical standard is coming constantly to have more thought for others. Compare, for example, the ideal of the ancient Hebrews with our own of to-day. Their highest teachers, their loftiest ideals committed massacres as merciless as those of the Turks, and these acts received the highest approbation of that race which has been the teacher of the world's religion. A similar action to-day would strike horror into the whole civilized world.

The ideal of any man at any age is always the embodiment of the characters which "his set" admires and regards as the best for the race in general. His set may be a large one and thus give him an average opinion of the race, or it may be a small one, like some small religious sect, and this would give him an ideal totally different from the average opinion of the race—sometimes lower and sometimes higher. But the fact that the ideal may change concerns the development of moral codes rather than the evolution of the moral sense. Conscience tells man to imitate his ideal. Whether our ideal be a knight of the African savage, the knight of the mediæval ages, or the knight of the twentieth century is dependent upon the accident of our birth; but this has nothing to do with the motive that actuates us. The anarchist who commits outrages may be as truly driven by conscience as the missionary; and in both cases their con-

science has arisen first from the feeling of coercion, which later was felt as obligation. While the model differs with different races and different centuries, man is impelled to imitate that model by the same sense of duty.

It may possibly seem that thus to explain the origin of conscience deprives it of all its imperative force. But this position indicates only a superficial view of the matter. The fact that conscience is known to develop in the individual while it is absent in the child, does not in the slightest degree decrease the cogency of the oughtness when it is developed. All individuals certainly begin life without conscience, and all develop it. With the adult the appeal to one's conscience forms commonly the most powerful of motives. It is the motive that will generally influence man when all appeals to expediency and reason fail. It will lead him to sacrifice his happiness and his life, and it has been the cause of most revolutions in history. It forms the strongest motive in legislation and, as we shall presently see, has been at the foundation of civilization itself. It does not make this motive any less significant to know that the individual is born without it and develops it under the conditions of his childhood. The fact that as a babe he had no conscience, and that his mother not only taught him to do right but even taught him that there was a right, does not make his conscience any less a part of his nature. Does it not follow that conscience is equally cogent for the individual and the race, even if we should accept its development in the race by a series of steps such as outlined in the previous pages? The conclusion that conscience has devel-

oped in the race as well as in the individual does not make its dictates any less imperative.

THE MORAL SENSE STARTED AS A "SPONTANEOUS
VARIATION"

One final question remains for brief consideration. What has been shown in this outline is that we can find numerous grades between the highly developed moral sense of to-day and the lowest condition among savages, and other intermediate grades between this and the condition of social habits among animals. It has been made evident that the early families in which this ethical principle developed would be the ones to survive, but it has not been shown how it happened that any families did develop this new phase of character. If some families in early times did develop these new methods of action while others did not, we can understand the survival of the former. But what caused any of them to start in this new line? Perhaps it may have been useful to man to make for himself a model, and then to pattern his life after this model to avoid the loss of self-respect, but this does not explain how he ever came to form the habit of creating such a model. The elimination of races with the lower stage of development of the moral sense does not explain the origin of races with that sense highly developed. In order that this character should grow there must have been constant departure from race habit, since a repetition of custom could produce no advance. If each generation simply learned what it was taught, and thus developed a moral nature like its parents, advance would be impossible. Some individuals must have

been in advance of the average. What was the cause of these advances which placed some ahead of the race?

This question is plainly akin to that of the origin of variations in general, a question which still remains one of the puzzles of biology. Living on the same street we may find those whose conscience is so highly developed that they will sacrifice life to their ideal of honor, and others in whom the sense is largely lacking. What makes the difference? Education doubtless explains it to a degree but not wholly, since two individuals with identical education may develop different grades of conscience. The moral sense is not even to-day wholly a matter of social, but must be in part a matter of organic inheritance. Still more true must this have been in regard to whatever of this instinct primitive man possessed before the formation of society, but the possession of which enabled him to form society. Somewhere back in human history there must have occurred some new impulses among men which led toward a willingness to sacrifice self-interest. It may have started in such a small way as to be only a suggestion, or it may have come suddenly like what the biologist calls *mutation*. It was this phase of the subject which Huxley had in mind when he stated that it was necessary to attribute the ethical nature to a "spontaneous variation," a statement made before the modern ideas of mutations had dawned. Mutations occur in other characters, and may surely have occurred on these lines also. We must recognize in human nature some internal law furnishing successive variations along the direction of impulses to sacrifice self-interests which have formed the

basis for the development of the moral sense, variations which have constantly produced individuals standing ahead of the average of the race.

Here more than anywhere does it become evident that the elimination of the unfit does not satisfactorily explain the origin of the fit; the elimination of lower grades of moral sense does not explain the origin of the higher. The lower grades have not been exterminated, but the higher have developed just the same. If it is necessary anywhere to find some forces to explain the origin of variation, which shall act *prior* to selection, even more necessary is it here to find something, to explain why mankind ever developed these successively higher grades of moral sense which could be subjected to the law of elimination. Throughout animals this principle of self-subordination, except in connection with reproduction, is hardly apparent and never becomes a factor in animal evolution. From the beginning of human history it is the central factor which has controlled the evolution of civilization, and has been directed not simply to reproduction but to a greater part of human affairs. Certainly, we cannot rest satisfied with an explanation which simply shows that the moral sense has developed by successive stages. The study of the development of the moral sense unquestionably throws much light on human history, but it hardly satisfies us as to the origin of the different grades of the moral sense which have been subject to the selection law.

To meet this point it is necessary to insist that the nature of man is such that variations along this line of increased love, sympathy, and self-sacrifice, of *altruism*, are constantly appearing. This would,

of course, make the moral sense the result of organic rather than social inheritance. Inborn with the individual, it is a part of the innate characters with which he starts into existence. This position is akin to that of the intuitive philosophy, but it differs in the fact that it insists that the conscience of both the individual and the race have come into existence by a series of slowly progressing stages and not full-fledged at the human creation. The first human beings had no moral nature; and from such a condition the modern races, with their highly developed consciences, have been derived by selection of those families or races showing higher and higher grades of love, sympathy, and altruism, which has resulted in what we now call the moral sense.

THE MORAL SENSE AND SOCIAL HEREDITY

It may be that some will be inclined to deny that the moral sense has had any such origin as that sketched out in this chapter. Some perhaps will insist with the intuitive philosophers that it did not have a natural origin at all, but has been implanted in the human race from the start by supernatural rather than by natural processes. To theistic science of to-day, however, there seems to be very little difference between the natural and the supernatural. Theistic science makes the fall of a stone to the ground just as much of a miracle as is the creation of worlds. The birth of a babe by natural processes is just as deep a mystery and just as incapable of any explanation as is the creation of the universe. A natural origin for the moral sense, therefore, such as is outlined above, just as truly demands the action of supernatural

powers as does the formation of the earth with its mountains and valleys and rivers. To teach that the moral sense came through the working of natural laws does not make it any the less necessary to admit the inadequacy of the finite mind to comprehend it. Nor does the belief in the origin of the moral sense given above destroy in the slightest the imperative nature of the demands which our ethical sense forces upon us. The demands of the moral nature constitute the central factor in human history and form the key to an understanding of civilization. But whether or not some may differ from the conclusion expressed in this chapter, all will certainly agree that moral *codes* have been a matter of education, and that these systems, which represent the moral condition of any nation at the present time, have been slowly developed since the earliest records of mankind. This conclusion of a slow development of the moral nature is all that is really necessary to warrant the deductions which will be reached in our general discussion. This will justify the following analysis.

What shall be our final conclusion as to the origin of the moral sense, viewed from the standpoint of science? Has it been the result of organic or social heredity? Clearly, it partakes of the nature of both. The impulses which lie at its foundation are surely matters of organic inheritance. So far as concerns the feeling of love, pride, fear, sympathy, and possibly also the instinct to obey authority, and other similar motives, they are without doubt innate, and are born in us as part of our natures. So far as conscience consists of these alone it is inborn and controlled by the laws of organic hered-

ity. So far as a failure to develop conscience is due to a lack of these feelings, each generation is at the mercy of the inexorable laws of heredity, which are so persistently forced upon our attention by the eugenists of to-day. Data which have been collected in recent years show beyond much doubt that some people and some families are largely lacking in these innate inherited instincts, and thus that a defective moral nature in many instances may be traced to organic heredity.

But from the conclusions of our analysis these innate impulses do not constitute the whole of the moral sense, and they do not in any degree constitute what we call moral codes. The latter consist really of a complicated and marvelous structure, most valuable to the human race, which has been reared upon the fundamental feelings above mentioned, by the action of society on the individual. To a considerable extent also the moral sense itself seems to have been the result of the action of the environment upon the growing mind of the child, for it is perfectly clear that the idea of right and wrong is instilled in every individual partly by education. Whether or not this is true of the moral sense, it certainly is true of moral codes. Just as language is an artificial structure erected upon a substratum of physical and mental powers, so conscience, at least as concerns its application, is an artificial structure, built upon a substratum of innate feelings. Just as the moral codes are the result of the society in which any group of men is living, so the moral sense itself is in the same way, to a certain extent at least, the result of the training which the child receives in habits of obedience, together with his distinctly

human powers of abstraction of ideas from concrete incidents. From being forced to obey he forms an idea of some superhuman influence, demanding his obedience, and this creates his idea of right and wrong. In this way, the idea of morality is an artificial creation, handed on by social inheritance. If a child were brought up apart from other human beings, where he was responsible for no one and no one responsible for him, we can hardly believe that he would spontaneously develop conscience, and probably no sense whatsoever of right and wrong. If this be true, the moral sense, though based upon true innate characters, is essentially acquired anew by each generation from the teaching of the last, and thus is the result of social rather than organic inheritance. This conclusion we may accept without denying that different individuals inherit by organic inheritance these fundamental instincts which alone make conscience a possibility, and that they inherit them in different degrees in different families.

It is not necessary for us to try to decide whether this attempt to explain the development of the moral sense by natural methods will be substantiated by the study of future years. Beyond question there are many points concerning it which need further light, and while it seems a natural method of explaining the origin of this fundamental human attribute, a final conclusion concerning it may be well left for the future to decide. One thing, however, is certain: the human race now possesses an ethical nature, one which has been undergoing a slow but constant development during the period of human history, a nature which calls upon mankind

to sacrifice self-interest, and which demands greater sacrifices today than ever before in the history of the world. This ethical nature has become the most important characteristic which separates man from animals, and this it is that constitutes the foundations of civilization. That this last statement is well founded now remains to be shown, and this must be done by a study of the evolution of civilization, to which we now turn our attention. We shall try to trace the steps by which the social organism, or civilization, has been developed to its present condition. In this attempt we shall first review the successive steps by which this evolution has taken place, and after thus obtaining a picture of the events we shall try to discover the fundamental principles and laws that have been concerned in bringing it about.

CHAPTER V

THE BEGINNINGS OF SOCIAL EVOLUTION

THE SIGNIFICANCE OF SOCIAL ORGANIZATION

'Tis not bones, muscles, nor even brain, but society that makes the man.

The physical difference between man and his closest allies is comparatively slight. The mental difference is greater; for while there may be found numerous links connecting the mental powers of animals with the mental powers of man, there is a sharper line of demarcation between man and animals mentally than physically. But, after all, that which really separates man from animals is neither physical structure nor mental powers. Mental powers are, indeed, of the utmost importance, for without them mankind could have never developed a civilization and could not have played any greater part in the world's history than animals. But without civilization, without organized society, his intelligence could never have accomplished much more than that of the animal. Perhaps this may be best realized if we try to compare that which can be accomplished by an exceptionally intelligent savage with that which is within the power of a monarch ruling over a civilized nation. The one can accomplish little or nothing of lasting moment. His only power is that of controlling the actions of a handful of savage warriors. After his death his influence ceases, his life having had hardly more influence than that of the buffalo that he has killed.

Contrast this with the possibilities within the reach of the ruler of a nation. The monarch may by a word change the face of nature by decreeing that a canal shall connect two oceans, and the history of the world may be deflected in one way or another by the will of the leader of a powerful nation. What is it that gives him this power? Not his intelligence necessarily, for, while possibly there may be more intelligence in the monarch than in the savage chieftain, no one would claim that this explains the difference between the powers of the two individuals. Whether Frederick the Great, when he decided to claim Silicia, was more intelligent than a warrior chief when he plans an Indian raid is a matter of no special concern, for there can be no question that the reason why the one altered the history of the world, while the other accomplished nothing, was not because of the difference in intelligence of the two leaders. Civilization had placed in the hands of the one immense forces to wield. The savage had little to aid him except his own individual powers. The one, by means of the forces placed in his hands by his ancestry, turns the destiny of the world with a word; the other has an influence hardly extending beyond his own vision.

A man standing alone can do little, no matter how intelligent. Imagine the most intelligent man living as a hermit, absolutely without contact with his fellow men. He would accomplish nothing, and his life would be simply an existence. But the same man placed in a civilized community may do a work that will live for all future history. Man owes his powers not simply to what he is himself, but, rather, to the fact that he is living in the midst of other

individuals who may be relied upon to combine with him in accomplishing any plan of mutual utility. It is human civilization rather than human intelligence that makes the extraordinary contrast between animal and human life.

It may be that the intelligence of man has developed since the time when he first appeared as man. But it is also true that the difference in intelligence between man of the twentieth century and the man of primeval days is vastly less than it seems to be. The chasm that separates twentieth century *civilization* from that of four thousand years before Christ is a vast one, but no such chasm separates the *mind* of the twentieth century man from that of his early progenitors. Indeed, some insist that, within historical times, man has really not advanced in intelligence. They tell us that the Greek, at the time of the glory of Greece, possessed an intelligence equal to if not surpassing that of the twentieth century. We need not here attempt to decide whether or not this position is correct. Even without admitting the claim, it is clear that the great difference between the Caucasian of to-day and the Greek of old is less in his innate capacity than in the tools with which he has to work. If we could give the Indian, from his infancy, all the facilities of civilization, and if, on the other hand, the Englishman should be given only the advantages which the savage now has, the Indian would beyond question accomplish vastly more than the Englishman, and would appear the more intelligent.

The fact is that man is the only animal that has built his own environment. Of all animals he is the only one that has surrounded himself with artificial

conditions, and inasmuch as the environment controls evolution, we may say that man has thus artificially controlled his own evolution. This fact, rather than intelligence, is his distinctive attribute. Man has some attribute that has enabled, or rather forced him to organize society. Without it he might, indeed, have become an intelligent animal, but with it he becomes man and dominates nature. It is our purpose next to look for the force or forces that have produced society, and which, therefore, most distinctively separate mankind from the animal kingdom.

Before we can consider the question of the laws that have produced social evolution we must try to get before our minds the salient features of that evolution. The history of social evolution has been nothing more than the history of mankind, and to attempt a universal history is, of course, not our purpose. But it may be possible in a comparatively brief space to extract from that history enough of its prominent features to get a tolerably fair picture of its broad scope. At all events, it will be the endeavor of this chapter to present a bird's-eye view of the rise and development of the social organism.

FAMILY LIFE AMONG ANIMALS

As already noticed, the family was the start of human civilization. The question of family life among animals below man is one of interest, but one concerning which we have no space to give extended discussion. Among the invertebrates there are no traces of anything that can properly be called family life, unless colonies of insects may in a modified way be considered as representing it. These

are, however, so clearly based on instinct that they cannot be called in any sense families. Among the vertebrates we find practically no family life until we get to some of the very higher. Fishes show no tendency to unite in families, though there are a few cases in which the male parent has a watchful care over the eggs produced by the female. Among amphibians and reptiles there are no more indications of family life than among fishes. The method by which the young are protected in these groups varies somewhat, and occasionally the parent has a more or less temporary interest in the eggs that are produced; but there is no approximation to family life. Among the birds there is the closest approximation to the family that is found anywhere among animals below man. Here, however, the indications of family life are confined to the highest type of birds. The majority of birds show no interest in the young, and nothing approximating toward the family. Among the higher birds, however, the two parents remain together for a considerable time, and continue associated until the eggs are hatched, and then join in the care of the young. Instances of the interest of the father and mother bird in their brood of young are too well known to need any emphasis. Family life as shown here is the closest approximation to the family life of mankind that is found anywhere. It is, however, interesting and important to note that among birds this family life is fleeting, and lasts only as long as the young are helpless and require the care of the parents. Among mammals in general the family life is on a lower grade than it is in the birds. The lower orders of the mammals, like the Rodentia

and Insectivora, and some of the others, show scarcely a trace of association into family life. Among the higher mammals, however, we do frequently find individuals living in large groups where there may be a monogamous relation. But there is nothing here like the association of individuals with each other to form a family union. The male has usually no interest in the mother, and no interest in the offspring, although there are some rare and uncertain exceptions to this rule. Throughout the great group of Ungulata there is a general absence of a mutual interest even in the sexes for each other. Among the Carnivora the family life is, if possible, even less developed. Maternal love is seen, it is true, and is a very strong influence in animals of this order. The readiness with which a mother tiger will sacrifice her own life for that of her offspring is proverbial; but the male does not associate with the female for any great length of time, and in most of the groups the father has no interest in the offspring. No organization of the family is known, even on the scale on which we find it among birds.

Indeed, among the mammals the male parent does not share in the parental love until we reach the higher order of primates. Among the monkeys there is sometimes an approximation toward family relationship. As a rule, monkeys live in large or small groups and do not break up at the close of the breeding season. In such groups the children appear to belong to the mother, or to the group, but not to any particular family. Occasionally among monkeys there is somewhat lasting union of the sexes, and we begin to find that the offspring are

a matter of interest, both to the males and females, who unite in defending them. Among the highest of the primates, the apes, the evidence in our possession at present is a little uncertain, but such facts as we have indicate that a true monogamic relation is commonly developed. The individuals associate in pairs beyond a doubt. It is claimed by some that the father takes an interest in the young similar to that of the mother. If this is true, it is the only instance among mammals, outside of man, where this occurs. Certainly, the sexes remain in a quite permanent association, the offspring remaining with them for some time. This is the closest approximation to family life, such as is found among man, that occurs among the mammals outside of the human race.

THE ORIGIN OF THE HUMAN FAMILY

The organization of family relations is practically universal among men. The human family differs from similar relations among animals in at least three salient features: 1. The human family is always more or less lasting, at all events, more permanent than the animal unions. 2. In the human family the bond of union is an interest in the offspring, whereas among all lower animals, except some birds, the bond of union is sexual passion. 3. In the human family a large factor is the desire for a household and the possession of property. Animals have no foresight and no notion of property. With man this idea has been a very important factor, contributing to the permanent union of individuals to form the family.

There is still more or less difference of opinion as

to the condition of the primitive human family. Whether it was at first polygamous or monogamous, or whether the family was at the outset communal, with no rules regulating sexual relations except caprice, are questions over which there has been no little dispute. There is no definite agreement on the matter to-day, although there is a growing tendency to believe that the human family was very early monogamous.

It is clear enough, however, that the most prominent feature of family life is the regulation of the sexual relations. Among the lowest animals there is no regulation. Among the higher animals, below man, various methods of regulation are found, communal, polygamous, promiscuous, etc. Among the higher primates, man's closest allies, there is a tendency toward monogamous relations. The individuals live in family groups or small parties, and to a certain extent the mating is such that each male has his own female. If such a sexual relation occurs among primates, it is likely that monogamy was the first type of family relation among men. This conclusion is gradually being adopted to-day as probable.

Be this as it may, it is known that there were two powerful forces combining to form the primitive human family. The first was the sexual instinct. This instinct, that impels the sexes to seek each other, is one of the most potent, if not the most potent force influencing the higher animals, and it always tends to bring about an association of individuals. Among all higher animals the sexual instinct produces temporary unions; among some birds and apes it produces associations which approximate those of the human family, but among animals such

unions are rarely very lasting. In most animals the period of sexual excitement depends upon the season and lasts only a few weeks. As this excitement wanes the bond of union is apt to be severed and the associations formed during the breeding season are generally broken up at its close. Occasionally, it is true, the unions may be more lasting, but it is the exception for them to continue after the season of sexual excitement is passed. With man, however, these instincts are not limited to any season, but serve as a bond for uniting the sexes in permanent union. Whatever influence this instinct may have had upon the family in later ages, it is unquestionable that it was one of the primitive forces which produced the family, and has been one of the forces which has kept the family institution in existence during all the vicissitudes of the centuries, in spite of all the attacks made upon it. The sexual instinct must be recognized as one of the most potent influences, for both good and ill, underlying the development of civilization.

But this alone has not been sufficient to account for the organization of the family. Among many savage tribes the sexual passions are unbridled, free indulgence is permitted, and there is no need of family institutions for their gratification. Yet even in these tribes the family is developed. Hence the permanent bond that unites the family cannot be found in the sexual passion. The second force which has contributed to the organization of the family is the desire for a household and the possession of children. This is based upon two emotions—love, or affection, and pride. The latter is the lower and the more primitive. The desire for a household must

have been a part of a universal desire to have as much as possible of the world's good things at the lowest price. A family, with its children, furnishes the parents with assistance and gives them greater power and influence. In the life of savages this is the strongest factor contributing to the formation of families, at least among tribes where the sexual instinct is allowed free indulgence.

After all, the most powerful influence contributing to the permanence of the family, even if not to its original formation, is the bond of affection for the offspring. This love for offspring is doubtless found far below the grade of man. Mother's love is frequently seen among animals, and it is usually strong enough to make the mother ready to sacrifice her life for her young. But among animals this love is fleeting, lasting only a few weeks at most, and always disappearing as soon as the young are old enough to be independent. Moreover, such a thing as paternal love among animals is almost unknown. As a rule, the father knows nothing of his offspring, even among the higher animals. Rarely does he remain with the female till the young are born, and he frequently takes such delight in destroying the young that the mother must perchance defend her offspring from their own father as vigorously as against another enemy. There are exceptions to this rule, especially among birds and the higher primates.

Now, with mankind these elements of parental love expand into an affection which supports the human family. Various factors have contributed to this end. Two prominent ones are the small number of offspring and the long period of helplessness of the young. Where a dozen young are produced at a time

the parental interest in each individual cannot be very great; but when the number is reduced to one the intensity of the affection is vastly increased. With all higher animals the mother's love lasts during the period of helpless infancy, and since the human offspring is dependent upon its mother for a period of helplessness lasting many years, the mother's love becomes deepened and produces a lasting influence on her life. This lengthened childhood also tends to arouse paternal affection. The father remains associated with the mother for a longer time, and the helpless child appeals to his affections as well as to those of the mother. Seeing his children constantly before him and feeling their dependence upon him, knowing also their possible future value, he acquires an affection for them. Travelers among the lowest savage races tell us that the children gain a great hold upon the affections of their parents. The savage may, it is true, in a fit of petulance dash out the brains of a child who displeases him, but nevertheless in his soberer moments he is willing to undergo sacrifices for the child.

Thus it came about that the family was built around the love of the parent for the child. This feeling was earlier than the affection of the husband for the wife, for they were primitively brought together by passion, a desire for a household, or for children. The feeling of affection is said to play absolutely no part in the marriages of primitive peoples, as illustrated by savages; a condition of things which is still more common among most races of civilized men than marriages for affection. But a union made from such motives, in civilized as well as savage races, is subsequently cemented into a per-

manent bond by the children, who become an object of common interest to both parents. Among savages marriages are readily dissolved if there are no children, but after the birth of children the dissolution of marriages is rare. The child with its long period of infancy was really the cause of the permanency of the human family. The long period of helpless infancy of the human babe is thus not a weakness, as it seems at first to be, but has been the source of the greatest strength, since it has developed the human family, which was the first step in social evolution.

THE CONDITIONS OF THE PRIMITIVE FAMILY

All evidence points to the conclusion that these primitive families lived in a state of constant warfare. We sometimes like to think of the conditions of the early family as a sort of ideal from which modern civilization has departed widely for the worse. Some have tried to believe that after man had made himself master of the animal world there ensued a period of peace before fraternal warfare began, and the primitive family is represented to us as a simple loving relation between parents and children, without the mutual hostilities that have arisen later. But for such a conclusion there is not a shred of evidence. On the contrary, all evidence tells us that from the beginning till to-day human history has been one of continual warfare. It is difficult for us to-day to realize the conditions of unremitting hostility that must have existed between the families of early peoples. But such a condition existed and is still found among modern savages. Warfare is the normal condition of life among most savage tribes; they frequently have no word for "friend-

ship," and hospitality is unknown. A stranger is always an enemy, and they feel that the only thing to be done when they see a stranger is to kill him. Under such conditions the individual could only exist when protected by his family, and the severest punishment that could be inflicted was to be "cast out" of the family, for this meant speedy death at the hands of some enemy. We have abundant evidence that this was the state of society in early times. So intense has this hostility between families been that even among tribes where there is a certain amount of friendship we find the egoism is so great that one family will actually refuse to assist in building a wall to prevent disaster from flood, simply on the ground that it will help their neighbors as well as themselves.

Not only did families thus continue a mutual hostility to each other, but even within the family conditions were far from ideal. The savage families are steeped in selfishness; egoism rules almost as absolutely as among animals. Three fourths of the children die in infancy. While the savages are fond of their children when young, there is abundance of evidence that the children are to-day and always have been frequently killed at the caprice of the parents. The older members of the families in turn are frequently made away with whenever the younger members see fit to perform this act. The relations of the members of the family have been those in which selfishness has been the basis of all action. Many children were born, but few were reared. The early family was a loose, crude attachment of individuals which, though showing a certain amount of mutual affection, was most easily broken

down under the influence of circumstances ; an attachment which was based upon an affection that was slight and never very lasting. Instead of being an ideal condition, evidence shows that the life of the primitive families was only a step in advance of the brute whose law of life was the law of struggle and extermination.

Such a condition was hardly an advance over that of certain animal societies. Animals, as well as men, are ruled by fear and pride, and, to a certain extent, by mother's love. Those who have observed the natural life of monkeys, for example, tell us that the families or groups live in harmony and that the children are forced by fear of punishment to obey the will of their parents or the leaders of the groups. The males protect and lead the family, and the two sexes are as faithful to each other as they are in the low races of mankind. The primitive human family certainly occupied a higher position, since its customs were more definite and were enforced by language. But the difference could not have been very great, certainly not sufficient to indicate that any radical break here separated mankind from the rest of the animal world. It must be emphasized again that such a low condition of the human family is not simply a matter of scientific imagination. It is actually found among many savage races of to-day, and historical records plainly point to a time when it represented the life of the ancestors of the races that have later developed into the highest nations. Such a condition was found, for example, among the Aryan race in its early history.

Within these families the relation of the members to each other showed considerable variety. Whether

there was ever a time when all members were equal is uncertain and unimportant, for the equality did not remain. Some members inevitably gained supremacy. Even in the family relations of the most primitive savages we find a variety of methods of individual subordination. Sometimes the mother becomes supreme, and her will dominates the family, this being the only law. But as a rule it is the father who is looked upon as the head of the family, and all members yield to him. Under such conditions filial reverence for the father is sometimes developed to an extraordinary extent, as was the case among the ancient Romans or the modern Chinese. In other great races of man the head of the family was commonly he who had strength to obtain and hold his position. So long as the father possessed a masterful mind he remained its head, but as soon as another acquired greater influence, the family head was changed. From this it followed that the eldest son, upon his marriage, was usually looked upon as the real head of the family, instead of the aged father. The important principle in such races was that the head of the family could change with circumstances, and this principle underlies the whole subsequent history of the development of the Aryan race, having had, as we shall see, a most extraordinary influence on the history of the development of civilization. In families where the head of the family was simply the strongest, filial reverence became slight and was sometimes entirely wanting. In these races the older members of the family were frequently killed when they were no longer useful. Daughters were not desired, and female infants were exposed to the weather for the purpose of getting rid of them.

Women were frequently cast out of the family to care for themselves, and after the death of the husband the wife was forced to sacrifice her life at his grave. It is, however, unnecessary to dwell in detail upon the vicissitudes of the early family life. Such a diversity is not surprising, and, indeed, was inevitable. In all races the particular form of family life was adjusted by custom, although in later centuries it was regulated by law.

Under these conditions it is clear that only those families in which harmony and unity were maintained would continue to hold their own in the struggle. Families in which there was a well-developed mutual dependence and willingness to yield individual interest to the general good would be able to present a united front to their enemies, while those in which individual interests were placed before family interests would break to pieces and soon disappear. In this way customs of obedience to the family head would tend to be preserved and become binding upon the family; that is, they would become *duties*. It is clear also that these duties would be confined to the members of the family and not extend to strangers. Within the family, custom would allow each to do as he wished only so far as this was possible without interfering with the rights of others; but in his relations to strangers or enemies he could do absolutely as he willed.

But loose as was the family attachment, uncertain as were its relations, the family nevertheless was the foundation of advance, and marked the first step in the rise upward from the brute nature toward civilization. The beginning of the family was a revolution of vast import; for while families, in a

limited way, did exist among lower animals, nowhere else than in man has the family contained a principle which led to further development and further organization. From the time of the establishment of the family the unit of selection is changed. Hitherto natural selection was directed toward the preservation of the best-fitted individuals. From now on the struggle for existence is directed toward the preservation of that combination of individuals which forms the best family unit. This change in the center of evolution has been the basis of all modern advance. Even at the present time the family is, in a large measure, the unit toward which the great law of nature is directed—the law of natural selection and the survival of the fittest.

THE PERMANENCE OF THE HUMAN FAMILY

The family has continued to remain the foundation of society through all the vicissitudes of the rolling centuries. It has had many attacks made upon it, sometimes consciously, sometimes unconsciously. Plato in his ideal republic attempted to overthrow the family organization. In later centuries various sects have attempted to produce the same result. The Anabaptists and Shakers are sects organized with the endeavor to overthrow the family, and ever and anon other religious sects have appeared with this same purpose. Sometimes the family organization has been almost overthrown. At the time of the Roman empire the immense development of wealth and the attendant corruption reduced family life to its lowest ebb, and almost destroyed it. To this destruction of the family life in the Roman empire not only the wealth and corruption of the ruling

classes contributed, but also the abject poverty of the dependent classes; and under the magnificence of the one class and the grinding poverty of the other the family nearly disappeared. But a few centuries later the family was reorganized with redoubled intensity. In the feudalism of the Middle Ages the family principle was elevated to a plane never before and never since attained. The family became, under feudalism, the center of stability, the center of power and property. The church too made marriage a sacrament, thus putting its powerful religious seal upon the family. But after feudalism disappeared another principle began to undermine the unity of the family. The priesthood degraded it and largely destroyed it. The last few centuries especially have seen the growth of another influence against the family, which we call individualism. Under its influence the individual again comes to be the center toward which government and progress are directed. This individualism began, or at least received its greatest impetus in the Reformation that occurred under Luther, for at this time the conscience and intelligence of the individual was proclaimed as the guiding principle in religious belief. Individualism has been immensely fostered in recent centuries by the growth of Protestantism, and so fast as it gains the upper hand just so fast is there a tendency toward undermining the significance of the family. In modern life the family does not mean what it meant in many centuries of the world's history. Our modern society, with its social and club life, and its great and increasing tendency toward divorces, is again aiming heavy blows at the existence of the family. Our scientific studies have also

tended to undermine the family influence. Eugenics is pointing out to us in no unclear light that, whatever may be its social value, the family organization as it exists to-day, at least, in modern civilization, is not adapted for breeding the best type of men. The conditions of civilization, instead of producing successive generations better and better equipped, are fostering weakness. The marriage customs of civilization tend to transmit disease and produce in the human race a general tendency toward retrogression. This testimony of science is another attempt to overthrow the force which has been the guiding principle in civilization.

But in spite of all the scientific, political, and social forces which tend to disintegrate the family interest, the family, though sometimes almost disappearing, has again and again come to the front and still remains as the unit of organization in our present civilization. Since the family has been able thus to resist all of these adverse tendencies of the centuries, since it survives the rise and fall of empires and nations, since it survives the corruption that comes from success and the misery that comes from failure, since it survives the insinuating effects of individualism and of scientific argument, it is very clear that there are some mighty forces underlying its organization, forces which are greater than the exigencies of politics or of science, forces which have clearly been guiding principles in the development of mankind through the ages. These forces that bind together the family, that reorganize it anew upon the ruins of old civilizations and enable it to withstand all of the attacks made upon it, must be fundamental forces lying at the basis of civilization. These

forces are, first, the fact that the family is a natural unit arising from reproduction; second, social instincts; third, desire for protection and power that comes from union; and, fourth, the interest and love of the members for each other. These together make a combination that no exigency of religion, politics, or science has been able to overthrow.

THE FORMATION OF SOCIETIES

Animal Societies.—The family life is only the beginning of organization, and we next turn to consider how larger associations than families have been formed. Even among animals there is a very evident tendency in this direction, for animals, though living in a state of competition and struggle, do not live in such a constant hostility as to keep them wholly isolated. On the contrary, it is the common rule to find them associated in groups of various kinds. The general facts are well known to all who have read anecdotes about animals, and we need do no more than give the briefest reference to them.

Some of the best-known animal societies are those among the colonial insects, like ants and bees. But these seem to be founded upon a different principle from that noted in the societies of mankind, and we will not dwell upon them. Of more significance is the tendency to form societies that is found among vertebrates. Fishes very commonly associate in schools, sometimes for protection, sometimes for hunting, and sometimes for migration. Amphibians and reptiles show less tendency toward societies, although occasionally lizards and snakes may be found in companies. Among birds the examples of societies are extremely numerous. Flocks of ducks,

geese, pigeons, sparrows, crows, partridges, quails, gulls, etc., are well known. Indeed, the tendency to associate is so widely distributed among birds as to be well-nigh universal. Some species, it is true, are commonly unsocial, but even these, like eagles, buzzards, etc., form temporary associations. Some which, like marine birds, seem to have no special interest in each other, occasionally combine in great numbers for common defense. Others, like the swans, although seeming to take no special interest in each other, nevertheless form societies which exclude all strangers. Most birds, however, form associations where there is a manifested pleasure in each other's company, and in some cases, like the parrots, they form great societies and station sentinels for guards. In this instance there is a semblance to actual organization and a clear advance toward society.

The mammals are, however, the most interesting for our purpose. Here we find all grades of organization. Among the lowest of them no societies whatever are formed. This is true of the Monotremata, Edentata, Insectivora, and most of the Marsupialia. Among the Rodentia, while some live solitary lives, many live in companies. Rats and mice frequently form societies, and rabbits in the same way associate together. Marmots and prairie dogs live in communities, and the wonderful colonies of beavers are proverbial. Marine animals, like whales, dolphins, porpoises, live almost universally in schools. Carnivora, which are in general flesh hunters, do not ordinarily show a tendency to form societies. Their kind of life is, in general, calculated to prevent individuals from living in companies,

since hunting can, as a rule, be better accomplished alone. But even among these we learn of packs of wolves and wild dogs. Leopards are sometimes met in groups of six or eight. Jackals sometimes hunt in companies; polar foxes may be found in packs, and the social habits of seals are known to everybody. Among the Ungulata societies are almost universal. Buffaloes, deer, antelopes, and all the rest are nearly always found in herds, sometimes of such size as to baffle comprehension, as illustrated by the American bison of earlier days. Elephants are usually found in herds ranging from ten to two hundred, and the whole list of hogs, rhinoceroses, hippopotamuses, also commonly live in companies of varying sizes. Among the primates solitary life is exceptional. The lemurs, the true monkeys and the apes all generally agree in living in societies. Moreover, we find that the grade of organization in these societies is frequently on a high plane. The band is usually under the control of some old male, and the habits of the tribe are well regulated by custom. They aid each other in various ways; they hunt in companies with posted sentinels, and even make preconcerted attacks on enemies, apparently under the leadership and generalship of the old males.

An almost endless list of examples illustrating animals' societies might be given, but the above will suffice to show that a tendency to formation of societies is very widely distributed even below man. The instinct that underlies these societies is doubtless varied. It is commonly for protection, or for better success in offensive attack on enemies. It is hardly possible that the combinations for these purposes are made intelligently, for we cannot believe

that animals understand enough to realize why they thus unite. They obey a blind impulse to act together; they act from simple instinct, and then the advantage thus afforded by unity of action preserves those animals which have such social instincts. Beyond doubt, however, another impulse often underlying these societies is the mutual pleasure in each other's company, which we call the social instinct. That this social instinct is widely distributed among the higher animals is very evident. The birds and higher animals most clearly find great enjoyment in each other's society. Indeed, it is only among the social animals that we find any especial evidence of enjoyment in life. Social birds *sing*, social mammals *play*, and such habits, which are our chief indications of enjoyment among animals, are confined to those animals among which the tendency to form societies is best developed. While we must recognize that the added strength which comes to a band of animals from their unity explains the preservation of such habits, we must also recognize that the impetus that leads to their formation is most commonly the social instinct which causes one individual to take pleasure in the company of another.

The Expansion of the Human Family.—The lowest type of the human family, as exhibited by savages, and hence probably by primitive man, is perhaps only a slight advance over that found among some animals like birds. With some human races organization has not progressed beyond the stage of the family. Among the Eskimos, for example, there are no such things as tribes or villages, no laws, no chiefs or leaders, but each family is quite independent. Practically the same conditions exist among the

Fuegians, for there too no higher association than the family seems to exist. Among some savages customs are such as to prevent further organization. The children, as they become adults, leave the family, separate from each other, and then completely forget their early life, having no more thought or affection for the members of their original family than for any other savages they may meet as enemies. Among the Bushmen the organization of associations larger than the family is hardly possible, and, at all events, does not occur. The members of the family, with their descendants, live together for a while, but soon the body becomes too numerous to continue to subsist upon the scanty support of the country in which they live. Without more knowledge of obtaining a living from the land than they possess the organization of a large community is impossible in the barren lands that form their home. The result is that when the family grows large it breaks to pieces and the groups separate at once.

But the human family differs from that of the animals in that the family is the lowest rather than the highest stage of civilization. Except among the few lowest tribes, there has been almost universally a tendency among the human races to unite in groups larger than the family. The method by which these early groups were formed is still uncertain, but we do know that nearly everywhere families organized into clans. Within the clans all persons were related to each other, and clans should, therefore, be regarded as the growth of single families. This appears to be true of the Scottish clans. But clans organized again into tribes, where two or more clans might be associated with each other for some pur-

pose, but where blood relationship was no longer apparent. Whether these tribes have resulted from growth or secondary union we cannot say. It is more natural to think of them as the result of growth, for by simple reproduction groups of hundreds or thousands of men would be quickly produced, all descended from the original stock, although all evidence of close relationship would soon disappear. Such a group would form a tribe. It is also conceivable that different clans, belonging to entirely different family groups, but located in each other's vicinity, may have combined temporarily for the purpose of repelling attacks of enemies or of making mutual conquests. Such early unions may have been temporary and, after the emergencies had passed, the different clans probably as a rule separated each to his own interests. Thus from the first, warfare has been the great organizing force. Peaceful savage tribes have little organization and no chieftains. The Eskimos are a peaceful race and have no organizations. Warfare always demands union and leadership, and this has been equally true of primitive savage races and civilized man.

But although these primitive organizations were undoubtedly temporary, it is certainly a fact that as the ages passed they became more and more permanent. Clans associating originally for mutual defense or for mutual contests failed to separate when the emergency was passed, and for a long time remained united. In this way arose the larger tribes and the early kingdoms, and by a constant combination the kingdoms increased in size to form the empires. From this point the history of civilization has been one of constant progression toward in-

creasing organization and a constant growth of organized communities.

If the low races of men are divided in accordance with the grade of their civilization, this division is parallel to the size of the groups of men that remain associated together. The divisions of civilization generally recognized are three: savagery, barbarism, and civilization—different stages indicated by the development of the arts and the general intelligence possessed by the groups. But it is striking to find that, after having once made these divisions, they are easily designated numerically, and even subdivided according to the size of tribes. The savages which are regarded as the *lowest savages* roam in groups composed of no more than from ten to forty members. *Middle savages* in groups from fifty to one hundred. The *higher savages* are in groups of from one hundred to five hundred. Among the *lower barbarians* we find associations of from one thousand to five thousand men. The *middle barbarians*, with a little higher grade of civilization, may be grouped in numbers as high as one hundred thousand. Among the *higher barbarians* the associations may rise to five hundred thousand. When we turn from these to civilized races we find in successive stages of civilization the nations of men ranged from a million up to the hundred or more millions that constitute the nations of modern times. Of course it is not meant to imply that the grade of civilization of the higher nations is strictly parallel to the size of the nations, for after the numbers reach into the many millions other factors besides numbers have an increasingly important influence. But it is clearly no mere accident that the grade of develop-

ment of the race is parallel with the number of individuals associated to form a system. It is certain that from the beginning of the organization of the family the progress of civilization has been constantly in the direction of the organization of larger and larger numbers of individuals into systems. Of course there have been many side currents to the general stream. Small nations have sometimes been ahead of larger ones, and many a great body of men has broken to pieces under the emergency of conditions. But in spite of all seeming disintegration it is perfectly clear that the general trend of the stream of advance has been constant and uniform. *Civilization has progressed toward greater and greater organization with a force that has been absolutely irresistible.*

CHAPTER VI

THE GROWTH OF DIFFERENT TYPES OF ORGANIZATION

RECOGNIZING that social evolution has been founded upon a constant increase in the size of organizations, we may next inquire into the methods by which these organizations have been brought about.

ORGANIZATION CENTERED AROUND INDIVIDUALS

One of the most important factors in this development of organization has been the influence of individuals. The first indication of a higher organization than the family is the appearance of a chieftain who exercises authority over a group of men among whom he lives. Among the lowest tribes there are no real chieftains such as are found among the higher tribes, although here it may happen that some individual, by virtue of his greater physical strength, his greater cunning, or his greater intelligence, makes himself influential. Indeed, the natural difference in ability of individuals inevitably gives to single men exceptional influence over others. Such a person, while he retains his vigor, is listened to, obeyed, and becomes the leader of the tribe in operations for offense or defense. But such an individual is only a temporary chieftain, and loses his authority as soon as another arises who, by means of superior genius or as the result of the waning strength of the first chieftain, can force himself into authority. We can understand that in all tribes a chieftain is a

necessity in war. If a tribe of one hundred men is to defend itself against enemies, or to make a war of conquest, some one must lead and organize its actions, otherwise the result of the war is extermination. We can understand too how the power of such a chieftain inevitably grows. If he leads a successful attack upon an enemy, he comes home with increased authority over his warriors. This means an authority over the tribe, which he will be able to hold for some time. Moreover, it will inevitably follow that the chieftain, in virtue of his greater power, will obtain a larger portion of the spoils that are taken in these wars. This will give him still greater influence in the community when the war is over.

If the tribe, by successful contests, grows in numbers, the chieftain becomes more and more a necessity, and in time a permanency. While ten men might fight ten others with no special need of a leader, ten thousand men cannot wage war against another ten thousand unless properly led. When great bodies of men come in contact with each other the success in the battle is dependent almost wholly upon a proper leader. The necessity of a chieftain grows, therefore, with the growth of the tribes; and in all races of men above the lowest tribes it is universal to find a leader. As the need for such a chieftain increases, so his power grows. We can readily understand how, as a tribe increases in numbers, the authority of the chieftain grows until it becomes that of a king or despot. This principle has been dominant through history. The development of civilization down to the present time shows us that nations have, in nearly all cases, been concentrated around individuals. It is the powerful chieftain that makes

the powerful tribe. It is the great leader that draws together the people of a nation into a solid, compact unit. It was Julius Cæsar who made the Roman empire. It was Mohammed who organized and made powerful the Mohammedan nation. It was Napoleon who united into a system a shattered nation, broken to pieces by bad conditions, and enabled it to make front against all of the combined power of Europe. It was Washington who united the settlers into a Union. From the beginning to the end of history great men have been the centers around which nations have developed. Individuals have been the nucleus around which organization has crystallized.

This great influence of individuals is one of the unique features of human civilization. In organic evolution the individual rarely counts. His influence upon posterity can be only through leaving a more numerous and more vigorous offspring. The influence of his life is nothing. With man, owing to new relations and new powers, the individual counts in evolution quite independently of offspring. His *life* has its meaning and not his *children only*. This will be discussed later, but demands notice here where we first see the influence of personality as a uniting center among men.

At this point there is a diversion in the history of races of man, a diversion which has dominated the development of two radically different types of civilization since the earliest historical periods of human life. From the very outset two different relations can be seen between the chieftain and the people over whom he has influence, and these two relations form the foundations of two widely divergent types of civilization. One was the *patriarchal* relation,

leading to despotism or stagnation which characterizes the nations of the East; the other was the *communal* relation, tending to democracy and the energy which characterizes the nations of the West.

It must not be assumed, however, that the types of civilization referred to have always been clear and sharply distinct. They represent two principles, one of which has, as a rule, been adopted by different types of man and different nations. But frequently the two types are mixed, and not infrequently overlap each other. In many of the great nations, these two principles of government have been in competition with each other, first the one and then the other gaining the supreme control. In some of our modern nations we can see clear evidence that a nation originally founded upon the communal system has had ingrafted upon it later the patriarchal system of government. But although these two systems of government are thus more or less mingled with each other in late history, they are nevertheless quite distinct from each other, and have marked two types of social development.

THE PATRIARCHAL SYSTEM AND ITS DEVELOPMENT

Based upon the Family.—The foundation of this system is the fact that the chieftain and the head of the tribe owes his position to his hereditary rights, and that the power is transferred from parent to son by the simple process of descent. This is nothing more than an expansion of the system of the original family. In the primitive family the father was the ruler; the wife and children belonged to him as a kind of property. Their lives were in his hands, and he had absolute power. No one in the early days

ventured to question the authority of the father over his family, a power based upon the conception that the family was his property. As the family increased in size the same principle held, extending from the family to the tribe, from the tribe to the kingdom, and resulting eventually in what is called *patriarchal government*. Under this system the chieftain was always a hereditary leader, and his power was handed down from generation to generation without question. As the members of the family recognized a complete subservience to the father, so the members of the tribes and kingdoms recognized the king as their common father and yielded to him perfect subservience. The king was, of course, the war chieftain, since none but the king could command obedience, and his power was thus immensely increased by war. An unsuccessful war dethroned him and overthrew his nation, but a successful war, yielding, as it did, spoils of which he, as leader, took the larger proportion, constantly augmented his influence by progressive and increasing steps.

The King a Religious Head.—From the very first the thought of the king as a religious leader has accompanied the idea of his political leadership. Religion, as we shall see later, has been a very powerful factor in producing organization, furnishing promises of future rewards for present sacrifices, and the one who is supposed to mediate between man and supernatural powers naturally obtained great influence. In a family the father was the religious head, and in these early nations the leader was always the religious leader. In the early nations founded upon patriarchal principles the king directed the religious rites, and he it was who was regarded as having the

power of mediation between supernatural powers and the world. This religious headship gave to him a power even greater than that obtained by his social and military leadership. In all ages men have been more easily led by supernatural fears and hopes than by those that concern the affairs of the world, as most forcibly when King Henry went a suppliant to Canossa. When these two sources of power were combined, and the early king was regarded both as the father who owned the nation and the king who could mediate between his people and their gods, the inevitable result was that such monarchs acquired absolute authority.

The result of such conditions was the rapid organization of monarchies and a tremendous impetus toward concentration. The greater the power of the leader, the greater was the reverence he inspired, and hence the closer the union of the individuals under him. The patriarchal system became thus a most powerful influence leading toward organization. The reverence it inspired united all men who recognized one individual as their leader, and brought them a united band to his support. It gave the subjects a valor which made them at all times willing to sacrifice their own lives for the advantage of this social and religious head. It was, in early ages, the greatest force toward advance. Without organization civilization could not have developed, and organization grew with the association of men into larger and more concentrated bands. Unless autocratic power had been possible in the hands of some individuals, such concentration would have been difficult or impossible. It was this subservience to the central head, this feeling of his religious as well as his

social authority, which served as a bond to unite the numerous disjointed fragments which composed the early nations. This patriarchal system was the characteristic of all those nations which earliest showed a power of advance. It led to a wonderfully rapid organization of larger and larger groups. It led by easy and increasingly rapid steps to the development of an Oriental nation.

Growth of Patriarchal Nations.—Under this principle of hereditary leadership the growth of a nation was easy and rapid. In the early periods of human history the world must have been peopled with thousands of small tribes, isolated from each other, each with its own chieftain, and in constant warfare with one another. The love of power and the desire for glory which have ever influenced man were sufficiently powerful motives for keeping these primitive nations in conflict. In the incessant conflict some of the tribes would be overthrown by others. If such tribes were simply held together by a bond of a common chieftain, it frequently followed that when the tribe was overthrown and its king captured the allegiance of the common people was transferred to the conqueror. The vanishing of a king was the transference of a kingdom, and the victor's power was increased by the addition of the conquered people to his own. The conquered tribe was sometimes reduced to slavery, but it was frequently incorporated with the conquerors to form a larger nation. Tribes, bred in the notion of being subservient to a leader, would simply transfer their allegiance to a new leader, and a new kingdom, composed of the several older ones, would again present a solid organization of greater size for future conquests.

But empires built under the patriarchal system lacked the element of permanency. They were easily built and as easily destroyed. They were created almost at the command of a victorious general, and they were, with equal ease, overthrown. Nothing bound them into a firm unit, and their permanency was slight. They were not even founded upon law, for in a strictly patriarchal system law was a practical impossibility, and attempts to rule such nations by law generally failed. For example, the great Persian empire had been built by the sword of Cyrus; his successor, Darius, tried to unite under a system of laws the gigantic structure built by the sword. But although a system of laws could be inaugurated by a wise and farseeing leader, it could not exist long under patriarchal rule. From the nature of the case law is here dependent upon the will of the monarch. It is the monarch who makes the laws and has the power of changing them. In a system that looks upon the monarch not only as a father but as the religious head of the nation nothing can be superior to his will. The power that makes the laws can unmake them and, if the law is simply dependent upon the will of the king, he can at will exempt any favorite or any class of favorites from its action. Hence each strives for the favor of the king in order to free himself from the laws which rule the rest of the nation. Absolute monarchy is thus fatal to the enforcement of law, for no laws can long withstand the submission of the people to the will of one absolute ruler.

Hence it is that in a patriarchal nation competition based upon excellence is crushed out of existence. There is one person at the head and there is no second. The subordinate officers have power only in

accordance with the caprice and will of the monarch. Ambition is crushed. If a man is ambitious, he perceives that the best means of attaining his goal is to win the favor of the source of power, and this he can attain by flattery as easily as by merit. This inevitably invites corruption of the worst kind, and every nation which has been founded upon this principle has soon become permeated with what in these modern times we call corruption. The patriarchal system inevitably results in despotism. Monarchy is its direct outcome; competition is destroyed, ambition is crushed, and all stimulus to energetic life is wanting.

The Weakness of Patriarchal Nations.—In the history of nations the result of this has been either destruction or stagnation. 1. Such nations held together so long as valiant generals led them, and war offered the hope of plunder and spoil; but, as a rule, they did not continue to be world powers. There was no cohesion of parts and usually the great fabric fell to pieces at the first adverse breath. Such has been the history of most of these great nations. They became war powers early in history. Under the influence of the war spirit they grew to extraordinary proportions, and expanded perhaps with prodigious rapidity. But none of these primitive types of nations has been able to hold its own against more powerful forces arising from different sources, and most of them, after having developed with great rapidity to their zenith, broke to pieces. 2. Some patriarchal nations, however, have not thus broken into fragments, as is illustrated by the great nation of China. Here we have the most extreme example known of subordination in the child to the parent and all to

the monarch, and, accordingly, a most absolute despotism has existed. But this great nation has been prevented from falling to pieces by the fact that it has been completely isolated from the rest of the world. All the vigorous nations which have dominated the history of the world have been in the West, separated from the great Chinese race by mountains and deserts. China has thus been left to develop by itself, and under these circumstances, its patriarchal government has expanded and has held together a great nation. But the result has been stagnation, for China has not progressed, and has practically remained for centuries in exactly the same state of civilization. The patriarchal system, by crushing ambition, resulted in a complete standstill, and the great nation of China, held together simply because it is isolated from other nations, has remained almost unknown, and certainly unprogressive. To-day this great sleeping nation has been waked up by its contact with the communal system of the West, and is undergoing a change so rapid that it is impossible for us to understand its real significance. The changes that are taking place in China to-day are a most illuminating illustration of the effect upon a nation founded upon the patriarchal system coming in contact with the live, active nations that have been developed under the influence of the communal system of government.

THE COMMUNAL SYSTEM

Based upon Individual Ability.—In this type of nation the relation of the chieftain to the people whom he rules was originally wholly different, since he was only a temporary leader. He obtained his position

by the sheer force of his abilities, and held it simply because he had power to hold it. At the very bottom it is recognized by such people that the chieftain owes his position to the will of those over whom he rules, and among these nations the leader was originally elected. His power was fleeting, lasting as long as he could hold it, or frequently only for a definite number of years. He did not necessarily retain his authority until his death, nor could he transfer it to his son. Herein is the essential difference between the patriarchal and the communal system. In the one, the leader owes his position to his inheritance from the father, and is revered as the religious head; in the other, he owes it simply to the fact that his people voluntarily give it to him, and regard him as an *elected* leader, but not as one with divine authority.

Among such nations two ruling forces have commonly developed. The reverence for the monarch, present in the patriarchal system, was originally lacking. The leader of such a community was not looked upon as sacred, since he was not its religious head. He was recognized as nothing more than the equal of his subjects, except in the fact that circumstances gave him greater authority, and perhaps greater genius. There is, therefore, wanting in this system of nations the one centralizing factor that has united the patriarchal tribes. The reverence, submission, and almost worship of the head of the nation, which had been the force uniting the people under the patriarchal system, was absolutely lacking here. Such nations felt, however, a demand for religious leaders, but the religious authority was generally distinct from the political head, and there arose

almost universally a second power—the priesthood—independent of the political head. In these nations we commonly find these two ruling forces in conflict with each other; the temporal and the spiritual authorities have, from the very first, been contending forces in the development of the communal nations.

Centralizing Force Weak.—The communal system was poorly adapted for creating nations. A centralizing force was lacking and the power of the leader was always uncertain. The leader never knew the extent of his power; since obedience to him was fundamentally a matter of volition, he never knew how far he could call upon his subjects to obey his will. Moreover, he never could know whether his power would be permanent, and it was practically certain that it would end with his death, even if it did not end long before that time. Hence there was originally no permanent bond to unite such people. With them the conquering of a king did not conquer the kingdom. Under the patriarchal system as soon as one monarch was overthrown by another the conqueror naturally became the monarch of the combined race, but under the communal system, when one leader was overthrown there was nothing to bind together the victor and the vanquished. The conquered tribe simply felt that their leader had been overthrown, but inasmuch as their leader was voluntarily elected, they could easily elect another. Thus, in the communal system there was less tendency toward the growth of nations by accretion. The feelings underlying the development of these tribes led to individualism, and the union of tribes for temporary purposes only. The allegiance to the leader was recognized as a matter of expediency and not a religious

duty, and there was thus lacking the cementing force which has controlled the development of the Oriental nations. Rivalries between leaders were perpetual. Revolts from a leader who tried to exercise greater power than his subjects wanted to give him were the rule. Disintegration was an inevitable tendency of the communal system.

In the purely communal system there is a strong opposition to monarchy and despotism. The influence of individuals and the love of power have however here, as well as elsewhere, produced kings and tyrants; but the people of communal nations have never readily accepted a condition of monarchy. It is true that in late centuries monarchy has been ingrafted upon many of the communal nations, since the monarch of a modern European nation is, in a sense, similar to that of the Oriental nation. But we must not fail to recognize that monarchy is new among these nations, and has been brought upon them in recent centuries rather by the conditions of things than as resulting from a national condition itself, and in the communal nations where monarchy has developed it is practically always limited by law and custom. In these nations, while the ruling classes try to instill the idea of the *divine right of kings* upon the nation, the people in general repudiate such a notion. The nations that have arisen from a communistic race—the whole Aryan race—have had a tendency to found their government upon individualism, and, in general, refuse to look upon the reigning monarch as anything more than a man like themselves, to whom, for purposes of proper control of the masses, has been delegated the power of ruling. That kings receive their power from

divine right is an idea that is repugnant to the communal nations of the West.

This lack of tendency to centralization explains the fact that we hear nothing of the communal nations during the period when the patriarchal systems grew into great nations. They failed to advance, and remained for long, long centuries unknown and obscure. Occasionally, indeed, under some exceptionally powerful leader they became a mighty force which could invade new countries and make themselves powers in civilization. But these were sporadic incidents, for they depended simply upon the personal power of a mighty leader, and the nation thus created usually fell to pieces after his death, failing to preserve the influence it would have had if the leader had been supported by the principles underlying the patriarchal system. There were in the early history of such people no opportunities for centralization. Nothing but expediency united the different tribes under one head; nothing held them long together when they did unite.

Makes Men Rather Than Nations.—Nevertheless, this communal system contained in it the element of greatest permanent strength. After the force of the patriarchal system had spent itself, and the nations it had produced had grown and broken to pieces, or shown that they were doomed to destruction or stagnation, then slowly these new forces, with their less forcible centralizing power, began to make themselves felt. Then this communistic race of people began to appear as a power in the world, and from that time on, the history of civilization has been wholly in the hands of nations that have their government based upon the communal idea. Perhaps a

more correct statement is that after these communal people did finally begin to form nations, they proved themselves universally more progressive than the stagnant patriarchal nations, and took into their hands the task of building civilization. This they did for the simple reason that *while the patriarchal system builds nations, the communal system makes men.*

THE ARYAN RACE

The great center of this type of civilization was the *Aryan* race, from which all the Western nations have been derived. The original home of this race may be still a matter of dispute. Whether, as has been supposed, they came originally from an Asiatic home, extending over Europe by a series of successive migrations, or whether, as others believe, their original home was the European continent, need not concern us here. The few facts that we know in regard to the race are significant. We know, for example, that they were in the habit of migrating, particularly in the spring, when great hordes of people started from their original home and migrated to unknown regions. These migrations were probably brought about by over reproduction which in time rendered their original homes incapable of supporting all its inhabitants. Like a swarm of bees, a migrating race started off for unknown lands and unknown experiences. They fought their way. Defeat was annihilation and courage was their only virtue. We know, moreover, that organization among these migrating hordes was quite well developed. They hung together as a unit, obeying the commands of a leader, and so long as the migration

extended so long was this host one organized system. But we know too that these migrating hosts broke up at the end of the migrating period into numerous isolated bands, and that organization practically disappeared.

The race was an intensely warlike one, ever restless, ever uneasy. Whether this intense restlessness was the cause of or produced by their communal customs we can hardly say. So uneasy and restless were the people that they could not and would not long endure the controlling power of one authority. This intense warlike nature led them into a condition of constant hostility to all around them. Within the limits of a family there might be peace, but outside of these limits constant hostility was found. Tribe was ever at war with tribe, a condition of affairs that lasted long through the centuries, indeed almost to the present era. The Aryan language originally possessed no word for "friendship," since there were no friendships; no word for "hospitality" is found in their original language, since they knew not the idea. All this indicates the intense warlike spirit of an ever-warring series of tribes. We know too that the filial reverence, so prominent a factor among the patriarchal nations, was to a large extent wanting. It is true that the family of the Aryans, as in other races, was commonly held together by paternal authority, and they commonly remained together as a unit until the numbers reached perhaps sixty or thereabouts. In these clans the members were all related to each other; but the only visible sign of their common relation was in the head of the family, the patriarch, the house father.

To him undoubtedly all of the members looked

with a certain amount of reverence, and his word was the bond, the only bond that united the members of the family into a unit. All of this, of course, is quite similar to the conditions of things under patriarchal government. But we find among the Aryans a new feature. The patriarch of the family was to be obeyed only so long as he showed himself capable of wielding his power and exercising it with judgment. In the Aryan family the elder son not infrequently assumed the headship upon marriage, and the father lost his prestige and power as the head of the family. He was frequently, indeed, especially if troublesome, put to death or cast out from the family circle, which amounted to the same thing. Under these conditions a patriarchal reverence, such as has been the basis of the development of the patriarchal nations, was not and could not have been developed.

When such tribes did unite they elected a chieftain. The man who held the position of ruler held it by his might, and his power depended upon the voluntary allegiance of his followers. Allegiance to such a chieftain was more or less compulsory, according as the chieftain showed himself capable of exercising power; but at the basis it was voluntary, and could be given or withheld according to the general wish of the people. Among the Aryans the chieftain was not looked upon as an intermediary between man and God, and there was therefore no religious feeling which impelled the early Aryans to give their obedience to their chieftain. Obeying a chieftain was with them never a religious rite but a matter of expediency.

The effect of the communal system upon the char-

acter of the people was great. The patriarchal system produced sluggishness of the people and stagnation of the race. Communism made the people restless and produced a race overflowing with activity. The possibility that each might become a leader made men ambitious, and universal ambition prevented growth by accretion.

Centralization Among the Aryans.—But in spite of this disintegrating tendency, the forces leading toward centralization were too strong to be checked even by the communism of the Aryans, and even in this race nations grew out of tribes. The formation of modern as well as ancient nations has been due to the irresistible force of concentration and increasing organization, for they are both founded upon the principle that power comes from union. But in the Aryan nation this centralization was a more voluntary one. These communities purposely combined for their own common good. The first association of this sort of which we have any record, and perhaps the first in existence, was that which the Greeks called the *Amphictyon*. It was a meeting of numerous Grecian tribes, collected together for the purpose of regulating common warfare, either of offense or defense, and regulating the matter of ancestor-worship, which was the basis of their religion. In this union each tribe counted as one, no matter whether large or small, and the actions which the tribes took were merely for the common good of the tribes as a body. It was a union which did not prevent the different tribes from being thoroughly independent of each other in practically all of their actions. The *Amphictyon*, however, was the beginning of the voluntary union of isolated independent

tribes, and was thus the beginning of the modern nation.

Growth of Aryan Nations.—We cannot follow the history of the modern nations as they have gradually grown from the unions of such isolated fragments. It may make our search after principles clearer if we survey a few of the salient features which stand forth prominently in the development of communal nations. The condition of independence of the different tribes, and the fact that their leaders were elective, produced in Greece a race of men all of whom were upon an equality with each other. It gave rise to a people each man of which was capable of being a leader. A handful of this class of men, each a master in himself, overthrew the great hosts of the Persian armies, in which every man was merely a piece of a big machine, controlled by one individual to whom all were slavishly subservient. The difference between the power of the Greek and the Persian was due fundamentally to this difference in the type of man that develops under the system of communism and that which develops under the patriarchal system. The whole history of Greece was a constant struggle to retain this system of equality. For it is the inevitable tendency of warfare that one man gains power, either by his genius or by his oratory, and power is so sweet that the attempt is constantly made to extend and to perpetuate it. Hence in Greece there was a constant struggle between this tendency toward a one-man power and the determination on the part of the people that such power should not continue. Greece was great only so long as she prevented the one-man power from becoming fixed upon the race, and her

glory waned as soon as Alexander made himself her master.

The Romans too belonged to the Aryan race and owed their strength during the time of Rome's vigor to the type of men that resulted from a refusal to be servilely obedient to any one power. In its early days Rome was nominally ruled by kings, but kings of limited power and short history. During the period of its growth into the mighty world nation, its leaders were constantly elective, and hence were men capable of leading and ruling. The highest office was open to the ambitions of all, and every Roman citizen felt the possibility of becoming a leader. The attempt was early made to separate the Roman people into two classes in accordance with their wealth. But the people refused such a division, and during the early history of the nation, during the time when its power was expanding, this constant unrest of the people was manifest, as shown by the long series of struggles between the patricians and plebeians. As long as this condition for individual equality continued, the nation continued to grow and retain its pristine vigor. But its success as a war nation created an army, and as the army became its ruler in later years, the original vigor of the race disappeared. Nominally, even in the later history of this nation, the emperor was elective, as he had been originally in all the Aryan races; but the army comprised the electors, and the Roman army, not the people, ruled the Roman empire. From that moment its power as a nation declined. The dominant influence of the army led to the same conditions that are found under the despotism of the Oriental nations. It brought about corruption and led to all of the evils

that result in all nations from the unresisted power of some one central force. Rome soon died of decay, in almost the same way that the patriarchal nations of the East have died under the influence of despotism.

The fall of Rome left Europe filled with numerous, disjointed peoples, wholly lacking in cohesion. The North was filled with the tribes of the Goths, the Franks, the Angles, the Danes, the Germans, and hosts of others, divided into an indefinite number of isolated bands, each band warring for itself, and owing no allegiance to any central authority. They comprised a miscellaneous mass of tribes, with no centralizing force except an occasional brilliant leader. For some centuries following, this condition of chaos existed throughout most of Europe. There was a kaleidoscopic series of unions and disintegrations, presenting at one time a strong combination, and perhaps in the next century isolated fragments of broken combinations. Slowly out of this chaos can be seen in the later centuries the emergence of the nations that have come to occupy modern Europe. The history of the growth of these nations shows wide variations, but there is one general principle which is concerned in them all. In every case there has been either slowly or rapidly developed a centralized organization, controlled by some centralizing force. In some countries this centralization has been fairly early; in others it has remained for later centuries to bring it about, and in some instances the final centralization has occurred only within the last few decades. The central authority around which the organizations have developed has been quite varied in the different races. In some cases it has

been a king, or an emperor. In some cases it has been the power of the Roman Catholic Church. In some cases it has been certain cities that have collected around themselves various peoples, and have controlled the organization. Again, it has been a combination of a king, together with the power of the nobles, and subsequently the power of the people, that has produced the centralization, for even in democratic England, centralization has been produced around the Parliament, which of course in a way represents the people themselves. Whether centralization shall be developed around the power of an individual, a king, or an emperor, or whether it shall develop around some other authority, has been largely a matter of incidents of history.

However varied have been the histories of the different races of modern Europe, they all illustrate the same fundamental principle; for they show that even in the communistic Aryan races there is an irresistible tendency toward centralization and organization. This has occurred everywhere, although the center around which the kingdom has been organized has been different in each nation. In the Aryan as well as in the Oriental races there has thus been some dominating force at work which has led toward centralization. In the Oriental nations this centralizing force was primitive and was a part of their system of ancestor-worship, which demanded a subservience to the king as the father of all. In the Aryan races, however, centralization was contradictory to their original customs, since the communal system does not lend itself to centralization. But in spite of this, in the Aryan races which have continued to exist this principle of centralization has ever forced itself

to the front. While the circumstances which have built the nations have been as varied as the nations, the building of the nations around some center has been universal.

CENTRALIZATION A SOURCE OF WEAKNESS

Centralization has thus been the keynote of progress in the Aryan race as well as in the Oriental races. It must be noticed, however, that among the Aryans it is a source of disturbance and weakness as well as one of strength. Whenever this centralization has reached the conditions found in Oriental nations and become so great as to lead to despotism, there is shown an element of weakness which soon results in revolution and disintegration. As soon as the army with its generals ruled Rome the empire fell into decay and died. When the monarchy became a despotism in France the result was chaos. Spain and Italy became servilely obedient to the Roman Church and passed rapidly and surely from their position as world powers. Germany, until its recent history, has resisted to a considerable extent this centralizing tendency, and as a result has retained its vigor. The result of its present centralized but limited monarchy is yet to be seen, for it is too early to determine its influence upon the people. England has persistently refused to be ruled by a central despot, and this refusal on her part has led to her becoming the widest world power, with influence that extends over the entire globe. The United States, which also persistently refuses to recognize a permanent central power, has rapidly become a world nation. Thus the nations that have retained world influence are those that, along with certain

centralizing tendencies, positively refuse to recognize a centralized authority sufficient to produce despotism. Russia is an instance of a communal Aryan race upon which the patriarchal idea of absolutism has been secondarily engrafted. To-day it retains much of its absolutism and still remains a great and powerful nation. But Russia up to the present time has not been a great force in the world's history. We are to-day wondering as to the future of this great nation, and sometimes ask if it is to become the world power of the twentieth century. But our expectations on this score are based upon the fact that it is a nation of so many millions of people. Judging, however, from the past history of the Aryan race, and, indeed, from the past history of the world, no nation which has been under the control of an absolute monarch has long been able to hold its own in the struggle for existence with other Aryan nations. This race has refused to submit permanently to absolutism. Hitherto absolute monarchy in Europe has contained seeds of failure; and Russia, since she is an absolute monarchy, is by no means sure of remaining a world power. Its absolutism is an inherent weakness and has produced already the internal corruption which, hitherto, has always been the beginning of decay. Russia's chance of ruling the twentieth century would be much greater if all authority had not become so centered as to crush out the individual.

We thus reach two seemingly opposite conclusions. We learn that centralization and organization are influences of irresistible power which have produced all the strong nations, since no nation that has refused to be centralized has long continued to exist

nor had any lasting influence in the world's history. As an opposite conclusion we learn that centralization has within it the inherent weakness that it leads toward revolution and chaos, at least among the Aryan races.



CHAPTER VII

THE GENERAL DIRECTION OF PROGRESS

WE are now ready to approach the center of our discussion, and we try to disentangle from this brief survey of the history of civilization the principles that underlie it. In our effort to comprehend social evolution it is principles rather than details that we are after. In this kaleidoscopic series of changes it is by no means easy to determine the fundamental principles concerned in the phenomena, but if we compare animal evolution, as it has been disclosed by study during the last half century, with the evolution of man, we shall be able to extract from the various investigations a few salient features which are beginning to stand forth more and more prominently.

A UNIVERSAL TENDENCY TOWARD CENTRALIZATION

The most patent fact in human history is the universal tendency of civilization in the direction of increasing organization and centralization. This has been marked from the beginning by a continual growth in the size of the combinations of men associated with each other. History has been a constant triumph of union over disunion, a constant destruction of types incapable of union. Starting with the family, this increase in the size of organizations progressed regularly until it has reached the twentieth century world, divided into a few great nations, together with a number of small, unimportant ones

destined soon to be swallowed up in the larger. This general progress toward increase in size has, however, been by no means uninterrupted. The tendency toward concentration has been replaced at intervals by disintegration. Nations have been formed only to be broken to pieces again. Even in the last two thousand years great nations have repeatedly been built and broken down. But although the progress is by no means regular, it is none the less certain, and as we look through the whole history we see that the most potent feature of civilization is an increasing tendency toward the formation of larger and larger bodies of men, united for common purposes. The force of centralization is irresistible. It is seen equally in the organization of the primitive family and in the growth of the modern industrial trust or the labor union. It may be guided and, in a measure controlled, but can no more be checked than can the rising of the tide.

As we examine this history more closely we find that it has not been a constant progress toward centralization, but, rather, that it has been the result of two quite opposite tendencies. From the first, while the impulse toward organization is patent, it has been more or less sharply opposed by the opposite tendency toward individualism or disintegration. *The development of civilization is to be explained as a constant struggle between these opposing forces of centralization and individualism, first one and then the other coming to the front.* The fundamental characteristic underlying organization is the *subordination of the individual*, while that underlying disintegration is the *exaltation of the individual*. Each must be considered by itself.

THE SUBORDINATION OF SELF

It is this feature which most sharply differentiates man from animals. Man is the only animal that has felt the necessity of being governed. Throughout his history the individual is constantly called upon and is always ready to yield some of his own interests to those of others. While this is the most distinctively human attribute, it is not wholly confined to man. As noticed in a previous chapter, combinations exist among animals, and in these combinations there is always more or less subordination of the individual to the leader. In a troop of monkeys a leader is always found, usually an old male, who enforces his will upon the rest, and the members of the troop yield obedience to the leader. But although thus occasionally found among animals, the principle is universal among men. No tribe is known where some subordination of self-interest is not manifest. With man it is the central force of development, since this alone has determined the growth in the size of human organizations. The willingness to yield self-interests to those of the family and community has been the factor which has held together the bodies of men that have formed the nations. Without this willingness to yield self-interests civilization would have been impossible. Its absence, in anything but a rudimentary condition, has prevented organization among the lower animals, and its universal presence among men has made possible the creation of nations.

Throughout human history self-subordination has been the foundation of organization. But the object toward which self-sacrifice has been directed has been by no means a constant one. In the lowest

family relations of primitive tribes self-interest simply yields to the authority of the father. A little later in history the individual yields his interest not simply to the father of the family but also to the family patriarch, a man whose influence extends over several connected families. Later still individual interests yield to the chieftain, whose influence extends more widely and includes numerous collected families. Subordination to the feudal lord of the Middle Ages was essentially the same thing, for here the lord of the manor held control over a large number of families who comprised his vassals. As centralization increased it became a king who obtained the allegiance of the chieftains, and, through them, of their vassals. As his power increased a wider and wider extent of territory became subservient to the central leader. The most striking phase of this yielding to central authority is seen in the relation of Europe to the Roman Church. Common people, chieftains, and even kings and emperors were, by a series of incidents, brought wholly under the control of that church, which became the one central force; and willingly or unwillingly, all grades of mediæval society came to yield self-interest to this one gigantic centralizing power. Later, in most European nations, the king and the church have, for various reasons, lost some of this blind allegiance of the subjects, but this simply means the transference of that allegiance elsewhere. To-day it has become commonly a fictitious something to which man yields obedience. The idea of a *nation* is, of course, purely a matter of imagination. The nation can experience no pleasure or sorrow at the allegiance of its citizens; but nevertheless in our modern days the interests of

individual, family, and race yield to the glory of the fatherland. What influence is stronger than patriotism, and what is patriotism except willingness to sacrifice for one's native land? Millions of men to-day will sacrifice everything they hold most dear to defend from attack that fiction which they call their country. But a country neither demands nor appreciates sacrifice, and since it is easier for men to yield self-interest to the demands of an individual than to the fiction of a nation, even with our modern nations and our great change in ideas of obligations, the allegiance is commonly centered around a person. The soldier fights for the king or the queen, and even in republican nations it is frequently the love and admiration for an individual statesman or general, or sympathy with an oppressed people, that brings out the heroic self-sacrifices.

Centralization is possible only where self-interests are subordinated to some central power, be it a man, a church, or an idea. From this it follows that the fundamental necessity for the development of civilization has been some impulse that leads man to yield some of his interests to others. This principle must contain the secret which underlies the evolution of human society. The question is not whether man will yield allegiance to authority, but simply to what he will yield allegiance—to a king, a church, a nation, a party, a trust, a labor union, or some other centralizing force.

CENTRALIZATION MEANS LOSS OF INDIVIDUAL FREEDOM

Among the lower orders of nature the individual counts for absolutely nothing. Of course each individual, so far as his own struggle for life is con-

cerned, is interested in his own survival, but from the broader aspect of nature he counts for nothing whatsoever. The struggle for existence aims at the species and not the individual. When a *Daphnia* may produce millions of offspring in the course of a summer, the survival of any one is a matter of no concern. It is only the species and its continuation which is of importance, and to this the interests of the individual are ruthlessly sacrificed. For the benefit of the colony the individual soldier ant is sacrificed without hesitation. Throughout the lower orders of animals this principle holds, and it holds more or less forcibly in all animals below man.

Even with early man we find no advance. With primitive man and savage races the individual counts for scarcely more than in the community of ants. The wars of savage races take no account of the life of the individuals. Each man is ready to sacrifice his own life in these combats for military glory, fame, or even the simple love of combat, and the chieftain does not regard the individual life as of value. Throughout savage races, and even the lower races of barbarians, a man's life is of no value. It is only the life of the family or the tribe that is of significance, and toward their preservation is directed the sacrifice of individuals.

In considering the relation of the individual to his conditions two distinct factors are to be considered. The first is his independence of action, that is, *freedom*; the second is the value and breadth of his life. As concerns the first, it is clear that centralization, with the growing size of organizations, has always taken place at the expense of individual freedom. The savage alone has absolute freedom, and

he only so long as he lives a life untrammelled by the rules of a family or a tribe. If he lives alone in nature, he can follow his own will wherever it may lead him, and he is thus absolutely free, except in so far as he is limited by the laws of nature. But no sooner does he take the first step toward organization, even to the extent of having a family, than his freedom disappears. He is no longer able to do exactly as he pleases, for his actions must be influenced by the interests of his family. This being the case, absolute freedom is practically never found among men, for with mankind the family organization is universal.

Beginning with the checks demanded by family life, the freedom of the individual to follow his own inclinations is more and more curbed with every step in the organization and concentration of society. It is true that freedom and liberty have been the great cry around which have centered most of the advances of civilization; but it is the giving up of freedom in its literal sense that constitutes the very essence of progress. No people have perfect freedom, and no nation wants it. Independence of action inevitably disappears with the organization of nations. Among early nations little or no attention was paid to the individuals of whom a nation was composed. It has not been with people that history has concerned itself. The early empires of the East, under the patriarchal system, dealt simply with kings. Their warfares were with other kings and with generals. Their treaties were with rulers, and each ruler made such treaties as he could to suit himself, with apparently, so far as we can judge from records, no consideration for the people under him. In Greece, it is

true, the individual possessed great powers, but he lost them after a little when the empire began to expand under Alexander. The Romans too were a republican people, but throughout their long history they dealt only with conquered cities and conquered armies, while the interests of the conquered people were hardly considered. The ruling powers in early nations did not recognize that the individual man had any special rights. It was only the mass that appealed to them, while the benefit of the components was a factor that rarely entered into consideration in the settlement of international difficulties. Among all earlier nations the individual was consequently always crushed under the weight of organization. With Rome the greater the glory and the higher the rise of imperial power, the more completely was the individual swamped, until, in the height of the Roman empire, the citizen was practically crushed out of existence, was of no more significance than the ant in its colony. It was the citizen who made early Rome. Pyrrhus recognized that he was defeated in his attack upon Rome not by the Roman generals but by the Roman farmers. To the greatness of the individual did Rome owe its pristine vigor; but with the empire all was changed. The glory of the central organizations, the development of the money power crushed the ambitions of the people. The individual became lost in the greatness of the empire, and the downfall of Rome was inevitable. For man as man, the Roman empire had no interest. The worker became too poor to live; the nonworker alone, with his wealth, had ease, and both ceased to multiply. As the value of the individual disappeared the empire crumbled to pieces.

Freedom must necessarily disappear with organization. Every advance in centralization makes the individual more dependent, and every law enacted by the nations undermines further his independence. The anarchist demands the abolition of law in order to restore primitive freedom. But there is another side of the individual's relation to society. Though the man becomes less free with the growth of organization, the breadth of his life becomes greater. Among Oriental nations the idea of the value of individual life seems hardly to have dawned, even to the present day, as is proved by the cheapness of life among the Chinese and Turks. But among the Western nations the individual has refused to allow himself to be swallowed up by the glory of the organized nation. His refusal thus to submit may perhaps be traced to the influence of the communal system; but, at all events, it has been the stimulus that has produced the restless organization and reorganization of the European peoples. We can easily trace this idea through the history of the last two thousand years, and we learn that the advance in civilization has been confined to those nations where the value of man has been most clearly recognized. European civilization has been dominated by the principle of liberty, and liberty means simply the right of the individual in contradistinction to the rights of the society or the king. Throughout the whole history of Western civilization the individual has ever been refusing to sacrifice himself to the central organization, and it is this refusal that has been the cause of the ceaseless disintegration and organization which have characterized European history for the last two millenniums.

EXALTATION OF THE INDIVIDUAL

Although centralization curbs freedom, still, with advancing civilization, a different phase of society has been developing, by which the individual is less and less called upon to sacrifice himself for the benefit of the community. Far down in the scale of animals the production of offspring results in the destruction of the parent. Most low animals die as soon as they mature their eggs. Each animal is sacrificed to the necessity of perpetuating the species. Reproduction is the end of life. Even among the low races of savages this is, to a large extent, true, especially for the female sex. The savage wife sacrifices all her individual interests to her one duty of rearing children. But as we pass through the stages of civilization we find that the necessity for this sacrifice becomes less and less. In the higher stages of society we no longer recognize that such a necessity exists at all. In modern society the perpetuation of the race is an incident, but not the end of life. The individual counts for more than the offspring. In modern society the purpose of existence is life, not reproduction.

In still another direction are less frequent calls made upon the individual for the sacrifice of his interests. Whereas with savages and with ancient nations the king had the right, universally recognized, of demanding the life of his subjects, in modern times, among all Western nations, this right is no longer recognized. Even the absolute monarch of Russia is no longer in a position where his word is regarded as sufficient excuse for the execution of his subjects; it must at least have a semblance of

legality. Little by little, as the centuries have passed, the people have demanded and obtained for themselves a recognition which in early centuries they did not receive. Modern civilization tells us that the individual is supreme, and that the purpose of government is to carry out the will of the people. Sometimes the monarch, or the capitalist, tries, and for a time succeeds in disregarding the individual; but not for long. The people of the Aryan race refuse to allow this to continue. In the modern nation it is not the glory of the nation or the love of the king that is the reason for government. Humanity is placing the greatest good of the greatest number ahead of all other objects. The interest of the people is a mightier force even than patriotism. Under these conditions the general position of mankind is almost reversed. Whereas in earlier ages the people existed for the benefit of the government and its leaders, now the government exists for the benefit of the people. The will of the king is of significance in modern nations only as it works out the welfare of the people.

THE INDIVIDUAL VERSUS SOCIETY

Thus in the history of civilization there has been a parallel growth of two opposite principles. One is the growth of society resulting from centralization; the other is the increasing value set upon the individual. These two principles are apparently opposed, the one falling as the other rises. Society, at least in the form in which it has actually developed, seems to have been ever trying to curb the individual. Society has constantly tried to make man its slave. The individual, on the other hand, has no

less constantly been trying to exert his own personality, trying to raise himself above the condition of slavery, trying to lift himself out of poverty, trying to obtain his share of the good things of the world. But in spite of this opposition, perhaps because of it, the two principles have developed simultaneously. Throughout all history there has been a constant see-saw between these two forces, now one and now the other getting the upper hand.

The Persistent Demands of the Individual.—Let us illustrate this fact by a brief reference to the important events of the last two thousand years. Everywhere kings have built their thrones by the might of the centralizing power, and just as universally have the kings found their thrones undermined by the rising and restless spirits of the individuals whom they rule. In the Roman republic the individual reigned supreme. In the Roman empire centralization almost crushed him out of existence. Rome fell because the individual was crushed, and Rome was conquered by a race of people in which the individual reigned supreme. There was hardly ever a people where there was less centralization than among the barbarians who camped down on the land that formerly composed the Roman empire. But although originally free and equal, it required only a few centuries after the fall of Rome to bring the masses under as crushing a despotism as ever the Romans had experienced.

The new conditions were, however, very different from the old. Feudalism was, in one sense, an extreme of decentralization, but nevertheless, so far as concerned the individual, it was a complete loss of freedom. The value of the man wholly disappeared,

except as he might be deemed a fighting machine for the benefit of his feudal lord. Justice was nonexistent, and the only rule in the land was the will of the feudal lord. It is difficult to realize to-day the evils of such conditions among the people in those times. A slight indication is suggested by the so-called truce of God, established in the eleventh century. At that time the Roman Church, realizing the evils that afflicted the people, made an attempt to remedy it in part by checking the ceaseless strifes which agitated the people. Finding this impossible, a simple means was tried by the establishment of the "truce of God." This was merely the endeavor to use the authority of the church to reduce the number of needless strifes between the nobles, by proclaiming that there should be three days of each week when warfare should cease, the other four being given over to the normal condition of warfare. Even this modest attempt failed. Now, when we remember that, though the lords enjoyed these quarrels, and, shut up in their castles, suffered little from them, the people, not thus protected, were constantly exposed to the horrors of raids and robberies, it becomes evident that, under feudalism, the condition of the individual descended to its lowest ebb. A man was of less value than a lord's war horse.

But the laws of progress brought the inevitable change, and once more came an exaltation of the interests of the individual. The first step toward breaking away from the condition of feudalism came from the rise of cities. These cities were groups of people, largely merchants, who were not serfs of the feudal barons, and who united by a compact to live or die together independent of the feudal lords.

Thus united, they made some headway against feudalism, and they occasionally obtained charters which placed their members upon a better footing in relation to the feudal lords. But simultaneously a still more powerful influence tended toward centralization. Royalty began to absorb more and more power at the expense of the lords. But it is extremely important to notice that royalty gained its power and increased its authority by acting in the interests of the people. In France it was the king who gave the people safe roads for travel, by establishing a guard which protected them from the ravages of the neighboring barons. He espoused the cause of the cities against the barons, thus again working for the interests of the common people. He instituted courts of justice in which even the feudal lords were brought to the bar and compelled to answer charges—a very distinct gain for the people. By thus espousing the cause of the individuals he obtained their allegiance, and they gladly gave him the power which could come from their support, enabling him thus to form, for his use, that sword of kings, the standing army.

Among the Western nations the right of the individual man has been the rallying cry of advance, while centralization has constantly represented stagnation. Freedom has been the battle cry of civilization, and this demand for freedom has been keener and louder as the centuries have passed. The United States was founded upon the individual; its very organization was based upon the statement that "all men were created free and equal," and through their whole history the individual has been the ruler, in name, at least. This same spirit underlies the feeling of unrest seen in our advanced communities to-

day. The anarchist is simply the man who carries individualism to extremes, insisting that the individual counts for more than society. He claims that each person should be left to obtain for himself all that his powers enable him to obtain, uncurbed by artificial law. The anarchist believes that the whole creation of law and custom has robbed man of his natural rights, and he would make man absolutely free by abolishing law. Socialism too, from a diametrically opposite standpoint, has the individual as its foundation. The socialist also places man before society, and he believes also that the laws as they have hitherto developed in civilized communities, instead of benefiting man, have benefited the rulers only, resulting in the enslavement of the great mass of the people, in an industrial if not in a political slavery. He would remedy the condition, however, by a method the opposite from anarchy, since he would still further increase the power of society. Thus socialism would produce by increasing the law what anarchism would produce by abolishing all law. The results would, to be sure, be vastly different, but both are actuated by the desire to increase the rights of the individual. Socialism would remodel society in such a way as to place the welfare of the individual foremost, and would do this by making laws that would prevent the accumulation of property, in this way making it impossible for the one to gain possession of the products of the labors of the many. In all modern nations where there are any active opinions upon public affairs the foundation of all agitation is the claim that our present civilization has robbed man of his rights as an individual, and the demand that these rights should be restored him

by a social revolution—a demand which is growing louder with each century.

The Irresistible Force of Centralization.—But although we see this spirit of individualism making more and more emphatic demands, we can see with equal clearness that the opposite tendency is working with no less force. The tendency toward absorption of individual rights in a central authority is as strong as that toward individualization, and in reading history we are impressed equally with the significance of centralization and individualism. It is true that Rome fell because the individual lost his rights, and that this placed the destinies of the world in the hands of a people to whom individual rights were primary. But it is equally true that it required but a few centuries for feudalism to enslave once more the individual. When feudalism fell, under the attack of the rights of men, it was actually overthrown by the force of centralization, for the king used the rights of man as an excuse for centering upon himself greater central authority. Thus, though the French monarchy was built originally upon its appeal to justice and the welfare of the people, it required but a few centuries for this centralizing power to throw off all disguise of justice, and to rule by might, crushing the people beneath its weight of intolerable taxation. Founded upon the rights of the people, the monarchy soon existed for itself alone, and ruled autocratically, leaving the people in as deep a misery as that from which it had rescued them. It required the French Revolution to rescue the individual once more. Having again come to the front, the individual yielded again to centralization under Napoleon.

In the United States, the nation founded upon the individual as its corner stone, the same history is repeating itself. The political right of the individual is firmly enough established, but the tendency to centralization cannot be resisted. Political parties have arisen, and these parties have, little by little, swallowed up the independent political power of the voter. In its century and a quarter of history there has arisen by comparatively rapid steps a condition of things in which the few rule the many almost as truly as under a system of monarchy. In this case, however, the ruler is not hereditary, and is subject to change; but those who control the political parties hold the people unconsciously in obedience. The voter thinks he is voting independently, but he is absolutely obliged, if he votes at all, to vote for many things he does not approve. In most recent times still, a different phase of centralization is appearing as a result of industrial centralization and labor unions. The primitive right of the individual to work where he pleases has disappeared under our industrial system almost as completely as it did under feudalism. The industrial corporations regulate when the man shall work and industrial communities regulate how a man shall live. The industrial corporations of recent years, called trusts, have obtained a control over the lives of the people as absolute as that possessed by the monarch of the European nation over his subjects. It is doubtful whether among the European nations any monarch in any age possessed the power which is held today by some of our gigantic industrial corporations. On the other side, the laborers are organizing labor unions which are none the less autocratic, and com-

monly less wise in their actions. Under the guise of organization for the benefit of the individual, his liberty is taken away from him, and the member of the labor union to-day is anything but a free man; he is almost as much of a slave as the serf of feudal days. He must work or be idle, according to the dictates of a few irresponsible leaders of the central organization. Thus, even in the country that was founded upon the individual, the irresistible force of organization and centralization is rapidly obliterating individual freedom.

CENTRALIZATION NOT OPPOSED TO INDIVIDUAL VALUE

The history of civilization has been a constant seesaw between the rights and demands of man as man, and the powers of some central authority. We cannot understand civilization without understanding that here are two gigantic, opposing forces. One is the persistent demand of the individual, and the other the irresistible force of concentration. Civilization could not have developed unless the individual had been advanced, nor could it have developed unless centralization had made possible a constantly widening organization. A race of slaves could never have developed civilization, nor could a lot of isolated geniuses. Throughout history these two forces have been in constant conflict, and if either had won a permanent victory, civilization would not have resulted. *The triumph of individualism would have been barbarism; the triumph of centralization would have been stagnation; the contest of the two has produced civilization.*

But, after all, centralization and individualism are not necessarily opposed. It is true that centraliza-

tion is opposed to individual independence, but it is not opposed to the second phase of individualism, that is, the individual's welfare. This becomes clear when we compare the condition of the man of to-day with that of earlier centuries. Greater nations exist to-day than ever before. Society is more highly organized, and more centralized at the beginning of the twentieth century than at any previous era in human history. But it is equally true that the individual stands on a higher plane than ever before in the history of the world. The man has greater rights, greater comforts, greater luxuries, and his life has a larger value than ever before in history. Greater independence he does not have, but his independence is replaced by greater worth. A high state of organization is absolutely necessary for the development of the highest value of the man. Absolute freedom is incompatible with the highest good of the individual.

The individual and society are benefited, each by the development of the other. On the one hand, it is impossible that there should be a highly organized society composed of men who have not themselves reached a high stage of mental development. Among low races an organized society is impossible. Savages cannot hold together to form any sort of society, nor can centralization alone make civilization. The Aryan race has become the dominant race in civilization, not because it had the strongest tendency to centralization, for the contrary was the fact. The fundamental reason for Aryan civilization is that their communal system first developed the man, and when, in recent centuries, centralization made its way into this race, there could arise a society of highly developed individuals. The height of civilization of

any society is, then, dependent both upon its organization and upon the units of which it is composed.

On the other hand, the individual benefits equally from the organization. The man of the twentieth century possesses a vastly larger share of good things than the man of any previous century. Civilization has placed in his hands a power which he could not have possessed as an independent individual. Even the poorest classes to-day have a greater amount of comforts than did the well-to-do in the earlier ages. The very lowest classes, the ignorant, are still pressed by want. This has always been the case and perhaps always will be. But the next higher stratum of society has advantages never dreamed of in earlier centuries, and these advantages have come from civilization. Organization has raised the plane upon which the mass of the people stand. While society benefits by the advance of the individual, the individual benefits even more from the advance of society. The individual has always suffered more from disintegration than from centralization. Clearly, there is no inconsistency between the advance of man as man, and the advance of society, even though the two forces are constantly opposed to each other.

Although the central authority has been constantly increasing its power, it has done so only by changing its nature and by giving more and more attention to the interests of the individual man. Slowly but surely has appeared the conception that the object of government is the benefit of the people, and this conception has resulted in an almost complete change in the aim of government and law. Under centralization in the crude form of the early centuries the gov-

ernment existed for itself and the benefit of the few who governed. The people existed for the benefit of the rulers. But gradually there has come about the idea that the government exists for the people, and in all advanced nations of to-day this idea overshadows all else. With but few exceptions modern civilized governments are, ostensibly at least, founded upon the recognition of the fact that the object of the government is neither for glory nor conquest, nor simply for defense, but to produce a condition of things in which the individual has the best opportunity and the highest welfare. Laws are made now for the benefit of the people, and not simply the rulers. It has become very clear that those nations are to dominate civilization in the future that place before all men equal opportunities for welfare and happiness. The condition of civilization has become such that it is no longer possible for one man to think of class interests alone. If we forget our neighbor, then the taxgatherer discovers us and compels us to care for him at greater cost. The government that forgets the welfare of its subjects in time finds its foundations thrown down by revolution. Running through the whole of modern society is this principle, that the individual is to be protected and cared for, that his interests are to be so guarded as to give him the greatest opportunity for welfare, and it is for this purpose that most laws are placed on the statute books.

How is the parallel advance of two such opposing forces reconciled? Clearly by compromise. It is certain that centralization does take away the freedom of the individual to follow his own caprice, since such absolute freedom is possible only to the man living

alone in nature. But his freedom of opportunity increases with society. Organization furnishes him with a vastly wider range of possibilities. The hermit, it is true, can follow his caprice, but there are very few things that he can do. The member of the civilized community cannot follow every caprice, but he has far greater possibilities than the hermit with his absolute freedom. In the society he is still free to follow his own will, provided this will be in accordance with certain rules which have been determined as best for the mutual advantage of all. These rules are generally made by the central authority, frequently by the despot for his own purpose; but as man is gaining political power he makes rules for his own government. With organization, then, his freedom of following caprice is lost, but his freedom of opportunity is immensely increased.

Society Offers Opportunity in the Place of License.—Thus, while the individual's independence has disappeared, his welfare has advanced, and, though centralization has been constantly increasing, it is less and less at the expense of the interests of the individual. This has been the history of the past few centuries and is to-day seen in every political move. It has been seen in the destruction of older absolute monarchies and equally well in the building of new monarchies out of the fragments of the old. Both have been, ostensibly at least, for the masses. We see it in all political moves which endeavor to establish democracy. We see it again in the attempts to debase the currency by paper or free silver. All these, and hosts of other political moves, have as an underlying principle the feeling that the individual is suffering at the expense of the favored few, and each

political doctrine is advocated as a means of putting all men more upon the par of equal opportunity. This feeling lies at the base of modern Socialism, which tries to institute a system of government which shall be compelled to care for the welfare of each individual. In all the seething and turmoil of to-day we see this principle ever coming up afresh. Underlying all political agitation of the present time is the feeling that the interests of the individual are suffering because of centralization, and everywhere the individual is demanding that legislation should be devised which shall produce a condition of things in which all will have an equal opportunity, an equality which shall be actual and not merely political fiction. The goal toward which society is tending is to furnish equal opportunities for all.

There is, thus, no contradiction in the advance of both centralization and individualism. Each develops to a higher and higher grade as the centuries pass. It has been the special significance of modern history, particularly since the Reformation, to reconcile the advanced value of the individual with the increasing organization of society. Each century sees greater centralization and each century sees the value of the individual raised higher. In the life of the primitive savage each individual was almost completely independent and free. With the development of the family and society he became successively subordinated to the commands of some central authority—a chieftain, a prince, a king, an emperor, or a church. Centralization, as it advanced, changed the individual more and more completely, until his loss of independence was entire. Then began a period of

enlightenment which slowly changed the condition of things. The individual has not been made free again, like his primitive savage ancestor, but he has been given in return for his lost freedom that which is much better—the accrued advantages of civilization. Civilization has presented him, in the place of freedom, a vastly larger life and greater powers. Just as fast as these two contradictory principles develop side by side, just so fast, and no faster, does civilization progress.

Here is one of the most distinctive contrasts between man and the lower animals. Through the history of man we can see an increasing centralization and an increasing value placed upon the individual. Among animals, while there are some traces of centralization, the individual never counts for anything. Each has what he can personally seize and hold, but there is nothing in animal organizations that protects the welfare of individuals. With mankind the mighty bulwark of society has grown up around the individual, both protecting him and giving him wonderful advantages, which he never could have possessed without society, but which force him, in return, to sacrifice some of his independence. It forbids his acting wholly from caprice, but in return furnishes him an opportunity to use the wonderful forces of civilization.

CHAPTER VIII

THE FUNDAMENTAL FORCES IN SOCIAL EVOLUTION

HAVING thus obtained an outline picture of the course of social evolution, we are prepared to consider the more fundamental question of the nature of the forces that have been concerned in the process. Since human social evolution has been so sharply contrasted with the evolution of animals, we may naturally expect that the principles concerned may be quite different. In the pursuit of this question we may best develop the matter by the consideration of two general topics: 1. What phases of human attributes have been responsible for this peculiar development of society? 2. What general laws of nature have directed and controlled this evolution?

HUMAN EVOLUTION HAS BEEN MENTAL RATHER THAN PHYSICAL

In trying to determine upon what phase of human nature his evolution has been founded we must first make a further contrast between the development of man and that of other animals. If we try to remove ourselves from the scene of action and take a view in perspective, we find the contrast a most extraordinary one. In regard to any other animal the history of the species appears merely an incident in the history of organic evolution. Species have appeared, developed for a little, obtained a temporary prominence and perhaps a local mastery over rivals, distributed themselves more or less over the earth's surface, and then vanished. No species of animal seems to be anything more than an incident in the

history of the world. But with man we seem to have something radically different. He has distributed himself not over a narrow region but over the whole earth. He has become dominant not only over inanimate but over animate nature as well. He must be looked upon as more than an incident. Other species appear and disappear, leaving no permanent trace, but man is changing the whole face of the globe. He is learning to control all nature, and he has gained such mastery over all conditions of life on the earth, that he promises soon to leave in existence only such creatures as he may choose to protect. Other species of animals have fought a petty battle with rivals; man has dominated all nature. This wonderful difference between the influence of man and all other races of animals has inclined some students to put man in a kingdom by himself. When judged by flesh and bone man is certainly a primate, but when judged by achievement, he cannot be classed with animals at all.

Recognizing this extraordinary contrast, we must ask, What is the distinctive character of man upon which this great contrast has been based? The character which we are after is clearly not physical. It is true that mankind has certain advantages over animals in some physical attributes, chiefly the efficiency of his hands. But this is certainly not the explanation of human evolution. His physical power is weaker than that of his near allies. His offensive and defensive weapons are less efficient than theirs.

THE INTELLECTUAL AND INSTINCTIVE NATURES OF MAN

It must follow, then, that the distinction of which we are in search lies along the lines of man's mental

attributes. But this does not answer our question, for there are two very distinct classes of mental attributes. These two classes we are accustomed to call the *intellectual* and the *instinctive*. Although both of these classes of actions are fundamentally mental, the more they are studied the more sharply do they stand in contrast with each other. The one leads to actions on the part of the individual, with a definite purpose in mind. When man acts from intelligence he recognizes the end he has in view, recognizes the relation of the means to that end, and directs his action from the beginning with the distinct purpose of accomplishing definite results. Intellect acts slowly, and comes into force little by little as the man learns by education and experience. This is a distinctive attribute of man, although perhaps he shares it with the higher animals to a slight extent. But the instinctive nature is widely different. An instinctive act is the result of impulse and not argument. Most prominent among these instinctive acts, for our purpose, stands the ethical nature. By this it is not meant to imply that the moral sense is simply an instinct, but only that its acts are of the nature of impulse rather than reason. When man acts in accordance with his moral sense he acts without debate, and follows what we are in the habit of calling impulse. This does not mean that his conscience acts without reason, but simply that the force that impels him to do right is instinctive and not logical. He feels that he must follow certain lines of action because they are right, and this feeling impels him to act, wholly independent of arguments which may be brought up as to the results of his action. Nay, more; this impulse rules him against his own argu-

ments, and impels him to do what he feels is right, even though his intelligence tells him that the result of the action will be disastrous to himself. This feeling of oughtness is not equally strong in all men. With some it is very slight. But a certain amount of it is found in all normal individuals, and when found it always urges action upon certain lines, irrespective of argument. The two phases of mental action, intellect and the moral sense, are then in the sharpest contrast with each other. The one is based on reason, while the other overrides reason, although it may contain an intellectual factor. The one is calculating and slow, the other impulsive and quick. The one is certainly based upon social heredity, the other is the result of organic inheritance. In making this last statement we must clearly recognize that it is only the primary impulses of ethics that are thus based upon organic inheritance and not the *educated* conscience. The latter, which really represents the ethical nature of adult man, is largely a matter of the action of the environment upon him. But the fundamental impulses which underlie ethics are inherent and thus due to organic inheritance.

Since then there are two radically different types of mental action the question for us next to consider is, Which of the two types has laid the foundation of the evolution of society and which has built upon that foundation the superstructure which we call civilization? Has social evolution been intellectual or ethical?

Of course no doubt can be raised that both phases of mental activity have contributed toward human evolution. The intellectual side of man has been at work in legislation, in the formulation of laws, in the

development of customs, arts, and industries, without which modern civilization would have been impossible. On the other hand, the ethical nature involves the whole series of religious beliefs, and these, manifestly, have been gigantic factors in the evolution of civilization. It is, however, a matter of importance to determine which has been fundamental. If it should prove that civilization had been based upon intelligence, then, clearly enough, the proper course for man to adopt, either for the purpose of advancing civilization, or of remedying its ills, would be to adopt every means for developing the intellectual side of nature. Education would then be the requisite for the future. If, on the other hand, it should appear that civilization is dependent upon ethics, then the development of the future would surely be dependent upon conscience, and our hope in the future would lie, not in education, but morality; not in schools alone, but in churches. The question is a fundamental one and certainly worthy of the closest attention.

To answer this question, we inquire first as to the foundation of the immense power in the hands of twentieth-century man. What difference between civilized man and the savage explains the mighty contrast between them? The answer to this question is, clearly, *Organization*. Without organization civilization had been impossible. The truth of this conclusion is evident enough if we compare the power that is in the hand of a savage chieftain with that which is in the hand of the emperor of a modern nation. Even though the intellectual power of the two be exactly the same, the actual power of the one is vastly superior to the other. Organization is the

foundation of civilization, and if we search for the controlling principle of evolution, we must ask what it is that has made it possible for him, century after century, to advance into higher stages of organization.

THE FOUNDATION OF ORGANIZATION

The growth of nations has been the result of a struggle between two opposite tendencies. It is no more evident that there has been a tendency for separate groups of men to unite than it is that there has been a corresponding tendency for the groups thus formed to break to pieces again. To understand social evolution we must ask why men unite and why the combinations so universally show a tendency to break to pieces. This search immediately resolves itself into two other questions: 1. What are the forces which bring about increasing centralization and organization? 2. What are the forces that hold these organizations together and whose absence results in disintegration? These two forces, as we shall find, are radically different, for the influences which bring men into organizations and the forces which hold them in lasting compact are by no means the same.

Forces Which Produce Union.—The forces which produce a tendency toward organization are so apparent as to need only the briefest notice. At the outset it is certain that the social instinct of man must have been an important impetus toward union. Mankind, as well as other animals, shows a pleasure in the company of other beings of the same species, and this social instinct very likely lay at the foundation of the first combinations of men into families and small groups of families. But other factors even more

forceful have, even in early time, played an important part. The necessity for protection against enemies, either wild animals or men, has undoubtedly been a great factor in the building of early organizations. To what extent this has been a conscious factor need not now concern us; but its influence has sometimes been even greater than that of the struggle for individual existence. Again, the great advantage that men acquire in obtaining food by being combined in companies, contributed to the formation of early organizations. The individual man has a greater difficulty in capturing wild animals and obtaining food from nature than does a combination of men united for the common purpose. A desire for conquest was a factor of no less significance. The war spirit seems inbred in human nature, and, so far as we can judge from the evidence, war has always been a prominent factor in human action, more prominent, even, in the lives of primitive man than in recent years. In the warfare of man with man greater conquests are always possible for bodies of men than for individuals, and this war spirit and war habit, universal among low races, was perhaps the most potent force of all in producing organization. Organization for war purposes inevitably produced the chieftain, and with the chieftain came the desire for military glory, for power, and for riches. The chieftain and his aids would always obtain a greater share of the spoils of war, and, since the desire for riches and power is an appetite which grows with exercise, it becomes more and more potent with every increment. Personal ambition is, then, a most potent factor in producing centralization and organization.

All through history the story is the same. The stimuli which have led most powerfully toward centralization must be regarded, in general, as selfish desires. Greed has been the potent influence. This has elevated the leaders of men above their fellows, and has also clustered the people around the leaders, inclining or forcing them to yield to their authority. The desire for personal glory and power has built tribes out of families, kingdoms out of tribes, and nations out of kingdoms. Nations have almost always been built by war. Persian and Assyrian nations were founded upon war, as well as other ancient nations. The warfares inaugurated by the Crusades started the tendency toward union which began in the Middle Ages and out of which our modern nations emerged. Warfare against foreign enemies has always been a stimulus to bring about closer unions. Instances of this sort are so familiar to all students of history as to require no further illustration. Universal peace has commonly meant stagnation. Organization in general has sprung from that class of motives included under the terms selfishness, egoism, greed, love of glory, ambition, etc. They are all among the lower classes of motives influencing human action. But they are powerful motives nevertheless, and have been the primary forces producing centralization of authority in the hands of a few individuals.

The Forces Which Produce Disintegration.—Organizations fall as well as rise. Centralization of power has ever been followed by decentralization. How striking it is to see the ease with which compact Rome overcame the many enemies which surrounded her on all sides! But more curious still is the fact

that these enemies allowed themselves, one after the other, to be overcome without making any apparent effort to form organizations which would enable them to make a front against a common foe. The suicidal tendency toward splitting into small sections was the ruin of the peoples with whom Rome fought, and unity was her force against them. The reason for all this was that the enemies of Rome were absolutely incapable of forming any unions which could hold together long enough to oppose victorious Rome. The Indians of North America formed many a coalition against the white invaders, and these coalitions were sometimes wide in extent and force. But while the Indians were able to combine, and felt the necessity for combining, they could not hold together; for no sooner did such combinations appear than they broke to pieces again. If they had remained intact and presented a united front against the few white invaders, the results of the European invasion would have been different. But to hold together was a simple impossibility among them, and, breaking to pieces, they disappeared before small but compact force of the invaders. What was it that enabled Rome to make such headway and rendered it impossible for her enemies to combine against her? What was it, a few centuries later, which made it possible for the new nations to arise out of the disjointed fragments of European peoples? What gave the few white men their victory against the hosts of North American Indians?

We have already sufficiently indicated where we must look for the disintegrating forces of society. They are to be found in what we have called individualism. As the powers of central authority have

grown, the governed people have become restive and finally thrown off the yoke of the central authority. We need not dwell further upon this which is so apparent in all history. But one of the most significant features of the development of society is the fact that these disintegrating forces have been constantly diminishing as civilization has been advancing. The gradual diminution of this disintegrating force is shown by the increasing size of organizations. Among low savage races it is rare to find more than forty individuals remaining together. They have hardly any adhesive power. The barbaric races are on a higher plane of civilization and have a correspondingly higher power of adhesion. Among them we find tribes of men ranging as high as half a million in numbers. With the civilized races this adhesive power is vastly stronger. Among them millions upon millions of men succeed in remaining in more or less close compacts, to form the modern nations. Evidently, the forces which bind these great organizations together are more potent than they are among savages.

But the forces which lead to organization are not more potent in the one case than in the other. Savages are constantly combining for purposes of common advantage, but they are just as constantly disintegrating under the influence of other forces. Among civilized races the tendency to combination is no more universal, but the tendency toward disintegration is lessened. The really significant question is, therefore, not what makes centralization, but what holds combinations together. What is it that enables the millions of our modern nations to remain in union, but the absence of which makes it an impossi-

bility for savage tribes to unite in combinations which include more than a few hundred individuals? What is the cement that holds nations together and prevents disintegration?

SOCIETY NOT FOUNDED UPON INTELLIGENCE

The force which preserves organization is not the same force that produces organization. Savages have a love for glory and power equal to that of the members of the great nations. The necessity for combination is with them even greater than it is among civilized races. The whole series of selfish stimuli which produce organization for offense or defense are even more active among savage and barbaric nations than they are among civilized races. But the savages simply cannot hold together, no matter how many unions they try to effect. To a savage it is a matter of amazement that a great nation, composed of numbers that his mind cannot calculate, is able to remain united under the rule of one person or of one central power. Such a thing is an impossibility in his conditions of life, and he is unable to comprehend the conditions that control the growth of the great nations.

Further, the force that holds organization together is not intelligence. Of course it is not for a moment questioned that intelligence is a factor, and a mighty factor, in producing the great nations. Great nations are certainly impossible except where intelligence is highly developed. But intelligence is not the primary factor that binds the nations and makes compact unions possible. Looking at the rise and fall of nations in history, we find that this has taken place almost independently of intelligence. Sometimes it

has been the intellectual nation that has overcome the one with less intelligence; but just as often it has been the nation with the less intelligence that has overcome her more intellectual foe. When the Persians became masters of Egypt it was an intellectual nation yielding to one less intelligent, for the intelligence of the people of the Nile certainly surpassed that of their Persian conquerors. But presently the history was reversed. Of all the nations of early times none surpassed the Greeks in intelligence. This race quickly overcame the Persians, giving us an instance of the intellectual nation conquering one less intelligent. But presently Greece herself yielded to the cohorts of Rome, a nation which was clearly her inferior in intelligence. Even the Romans themselves recognized this inferiority, and soon the victorious Romans learned to depend upon Greece for their masters in education, art, and literature, and always recognized the superiority of Greece in these respects. A few centuries later this same Rome, that had by that time become the one intellectual race of the world, was overcome by the barbaric races of the north, among whom hardly the rudiments of intelligence had appeared, and education was unknown. That it is not the intelligent races that win is illustrated by examples in abundance. The cultured, wealthy Byzantine nation failed to be a force compared to the crude Teutons. The brilliant and intellectual Spanish nation yielded to the rough, almost uneducated inhabitants of the Netherlands. Even in more recent times it is no less evident that the intelligence of the race does not give it a dominating influence. The Latin peoples of Europe have always been the intellectual races, compared with

the slower Teutonic races. These Latin races have to-day lost none of their intelligence, none of their quickness or keenness, and none of their mental power; but they have lost their control of the destinies of Europe, which have been assumed by races in which the intelligence certainly has not, in the past, been upon an equality with that of the Latin races.

All of these facts show clearly enough that we must look for something besides intelligence if we are to find the adhesive power that holds people together and makes the victorious nation. In fact, too much education has a tendency toward disintegration rather than organization. With high grades of intelligence, each individual is apt to come to place his own interests too highly, lose his willingness to sacrifice his own pleasures or his own rights for the advantage of others, and especially for the advantage of his nation. Among the highly intelligent there is frequently a diminution of that feeling of patriotism, of love for the king or a country that is needed to make a strong nation. The intellectual classes are not the quickest to recruit the armies. Clearly enough, then, we must conclude that the force that makes the nation and holds organizations together is not intelligence. Again we are forced to ask, What is this force?

We must now notice again that impulses to action are twofold. Sometimes, indeed, we speak of man as a combination of two distinct beings. The first is the being of habit, of routine, or of instinct. Many of our actions are controlled largely by a class of impulses which we speak of as instinctive. Some of these actions are inherited, like the sucking of the

infant, and thus truly instinctive. In other cases they are simply methods of action adopted by the individual and followed so long that they actually become part of his mental machinery. These, though not inherited, are, like instincts, due to the structure of the nerve machine. Such modifications of nerve structures arise in the individual who follows, during his life, certain definite types of action. The presence of such machinery enables man to act quickly, without the necessity of any decision. The involuntary and even unconscious winking when a particle of dust enters the eye is an example of this class of actions. The other side of human action we call the initiative, and is controlled by intelligence. The individual reasons out a line of action and commonly adopts it. With each action he puts himself on new ground, and the line of action which he follows in the future is not necessarily the same as he has followed in the past under similar circumstances, but is what his intelligence points out to him as best at the time. This initiative side of action enables man to adapt himself to new conditions. But its action is slow and can rarely be depended upon to enable one to make a quick decision in an emergency. Nevertheless, it is upon this initiative side of our nature that we especially pride ourselves. It is here that we find one of the sharpest distinctions between man and animals. Man is largely controlled by the initiative side of his nature, animals almost wholly by the instinctive side. Among animals the initiative side of the nature is only slightly developed. An ant or a bee in a colony shows no power of initiative action, but simply follows the instinctive impulses which it inherits. A newborn chicken

does many wonderful things when first appearing in the world, but all chicks do the same thing under the same circumstances. With man the initiative phase of action becomes far more prominent and assumes a larger control over action.

Nevertheless, though provided with great initiative powers, man too is largely ruled by the instinctive side of his mental nature. In his early infancy, of course, it is this side of his nature alone that controls his actions. It requires years of slow teaching of experience before we begin to see in the human child even the glimmerings of the higher side of his nature. Very slowly does he free himself from the routine and instinctive phase of action. Even in his adult life the routine rather than the initiative side takes precedence in ordinary life. Our daily actions have become such a part of ourselves that they are pure routine. After patiently learning to form letters with a pen, at great labor to ourselves, we finally train our nerves and muscles to this task, until our writing becomes a matter of routine. We no longer think of the movements of the fingers, rarely indeed, of the letters which form the words. This impulsive or routine side of nature not infrequently overrides reason. A soldier leads a forlorn hope, recognizing that it is to be at the expense of his life. The man who sits down to reason it out will let another go in his place. Two men break down in health, one from overwork, the other from dissipation. Reason tells us that both are equally to blame. But our impulses tell us the contrary, and, while we blame the one in unmeasured terms, we commiserate the other, or perhaps even commend him. Thus, in the human race, as well as in animals, it is the

instinctive side of the nature which frequently controls our actions. After our habits are once formed we follow them unthinkingly for the rest of our lives.

CIVILIZATION FOUNDED UPON INSTINCT

It is evident that man has not reasoned himself into civilization. He has simply drifted, sometimes forward and sometimes backward. Sometimes the race drifts backward in spite of the strenuous efforts made by the intelligent individuals to keep it progressing. It is instructive to see how clearly the Romans in the days of the later empire understood whither they were drifting, and how well they knew they were going down to destruction. But intelligence, combined with such laws as legislation could devise, could not check the tide. The French nation of to-day, as it reads its own statistics and notices its decreasing birth rate, clearly understands that it is in a similar position, and is making strenuous efforts by legislation to stem the current which is leading it downward. That it will succeed is at least doubtful, for such great currents of progress have never yet been stopped by legislation. The other European, as well as the American people of to-day, are recognizing a similar problem.

Equally true is it that man has not reasoned himself into advance. Nothing is more certain than that the force that urged man toward organization has not been the conception that such organization raised him to a higher plane. He has been stimulated to combine with his fellow man by various influences, but an intelligent comprehension that combination produces an advance in civilization has not been one of them. It is impulse of one kind or another that

has produced organization. It is easy to rule a man by impulse, but very difficult to rule him by reason. It is easy to appeal to his emotions and get him to perform any action we may choose, but to get him to follow a line by appealing to his intelligence is a very difficult task. The general actions of the race are not controlled by intelligence, but by emotions and instincts. In all crises the action of the race is mob action. A mob frequently acts diametrically opposite to the course which the wisdom of each individual would tell him to follow, for it is never controlled by logic, although it may be controlled by enthusiasm. If a leader can take hold of the emotions of a mob, he can lead it where he will; not infrequently the whole action of a mob may be changed by raising a laugh. Certainly, logic plays no part at such a time, while emotion and enthusiasm are supreme.

Most crises in history have been controlled by impulse. The leader may try to rule, but unless he can get hold of the emotions of the people he is powerless to produce great events. Among primitive people the individual yields to the chieftain, not from a sense of logic, but because of an impulse that tells him to obey his leader. If we ask what, in the last few centuries, has led to the heroism of the soldier and the great conquests which have changed the facts of history, we find it was commonly love for the king, or that unintelligible something called loyalty. The obedience which the soldier gives to his officers is the result of impulse, not intelligence. He has been drilled and drilled until his whole nervous mechanism is so molded that it will respond to a command just as would a machine. It is this machinery

that urges him to obey a command, even at the price of certain death. Even in our modern, free countries the citizen is controlled more by impulse than reason. He thinks he votes intelligently; but no one can fail to recognize that the vast majority of people vote for a certain party simply because their parents voted for it, or because some leader, who has won their admiration, tells them to do so. Most of us follow blindly the custom of those around us. We shut our eyes to logic and act from instincts and emotion.

Rome conquered her enemies because her soldiers acted together. Her enemies lost because they were unable to hold together; but this inability did not come from any lack of intelligence. Highly intelligent Greece perfectly understood the necessity for unity of action. As nations have disintegrated one after the other, it has not been from any lack of appreciation of the results of disintegration, but because of the inability to hold together. After the complete disintegration of the European peoples which followed the inroads of the barbarians into Italy, there was, for a short time, no centralizing force. But soon the tendency to centralization appeared again, as the Roman Church, little by little, gained control over the barbarians of the north. This power stretched its influence over tribe after tribe until it had underneath its sway all the races of Europe. But the church thus gained its influence through its appeal, not to their intelligence, but to their emotions. It was the religious instincts of men, their feeling of the mysterious, their purely emotional nature, that enabled the papacy to gain control over Europe so completely that at its bidding

the people would give up their allegiance to their king. How evident it is that emotion caused that new series of events which produced the crusades and resulted in the modern nations! The wild enthusiasm excited by Peter the Hermit drew hundreds of thousands into a hopeless cause, which the slightest reasoning power would have shown to be suicidal. But these emotions changed the face of Europe and founded the modern nations. The French Revolution was a most extraordinary burst of emotion; and it was, again, another kind of enthusiasm which gave to Napoleon his control over the lives of his soldiers and thus over the history of Europe. Even in these modern days the same is true, for every war must start with an appeal to the impulses of the people. The intelligence of the leaders may bring about a condition of things demanding redress; but unless the emotions of the masses are aroused, the conduct of a war is impossible. Slavery could be argued indefinitely, but a war which ended it in the United States was possible only when emotions were excited by Uncle Tom's Cabin, and the feeling of patriotism had been aroused by the firing on the flag. Masses of men are ruled through their emotions and instincts. It was the intensity of the emotions of the masses in behalf of the Cubans that made the Spanish-American War possible, whatever might have been the logic of the leaders. Arguments could never have produced the results had not the narration of the events kindled the emotions of the people. The English people were not ready for a South African war so long as the matter was treated by argument; but as soon as the South African Republic declared war against them, the nation arose almost

to a man. They forgot the justice or injustice of the case and were simply controlled by love for country.

It must not be inferred, however, that intelligence has played no part in the development of civilization. Nothing could be more absurd than such a claim, for intelligence has ever been a most potent factor. It has constantly aided in determining the direction in which the emotions are turned. Even the emotions of the mob are determined in considerable measure by intelligence. A mob in an educated nation will behave differently from a mob of savages, and their intelligence formulates the impulses of the masses. It trains the minds of individuals, and individual training is a primary factor in determining the direction in which emotions tend. Intelligence likewise makes laws and creates conditions—two important factors in guiding emotions. Reason, when highly developed in an individual, may be paramount in its power. Intelligence may be supreme in telling the standard-bearer where to place his standard, although it is emotion which brings the army flocking around the standard. While ethics is based upon emotion rather than reason, it is clear that, were it not for the influence of intelligence, the ethical nature could not have advanced. It is intelligence that shows to one person the evils of slavery and enables him so to work upon the emotions of the masses as to arouse a concerted action which will crush the evil. It is reason that shows the general how he can successfully use the force which the allegiance of his army puts in his hands. It is intelligence that enables the one individual to see what it is that the working class should demand from their employers, and that enables him to make himself a leader in

demanding reform. But it is unthinking enthusiasm which binds the masses together, filling them with blind confidence in their leader, and a willingness to follow him in every turn. Intelligence formulates legislation, but legislation is powerless unless backed by popular support. Legislation follows public opinion, rarely leads it, and is helpless in the face of national impulses. Nations are led by their feelings, not their intellects. Indeed, too often laws check instead of lead in national progress. The law protected the slave, and to-day protects many a criminal. Advance has demanded and still demands the overruling of the law by the force of public feeling. Laws and legislation are the results, not the causes of evolution. Parliaments do not make social conditions, but these make the Parliaments.

Most certainly intelligence has been a necessary factor in the advance of civilization, so necessary indeed that it may be a mistake to place it secondary. But while reason may point out the best direction for advance, it is by appealing to the instinctive side of human nature that mankind in general is influenced to follow the direction pointed out. Every page of history tells us of crimes determined by impulse; every page tells us that while intelligence guides civilization it does so by gaining control of the emotions of the masses. History has been more under the immediate domination of the instinctive than the intellectual nature. Civilization has been brought to its successively higher stages through instinct. But since there are two fundamental instincts in man, the egoistic and the altruistic, we are brought next to the question as to which of these two has produced the development of civilization.



CHAPTER IX

EGOISM IN THE HUMAN RACE

EGOISM OR ALTRUISM?

RECOGNIZING that civilization has been founded upon instinct, using that term in a broad sense, our next question is to determine what kind of instincts have been concerned. There are two quite contradictory classes of instincts actuating mankind, the *egoistic* and the *altruistic*. The first of the two runs through living nature and is found among all animals. The second begins among the higher animals but is chiefly developed in man. The first lies at the foundation of the far-reaching law of natural selection. The second, to a certain extent, is opposed to the law of natural selection. In trying to determine the guiding forces in social evolution we will first consider man's relation to the law of natural selection and then the relation of the altruistic impulses to his evolution.

It has sometimes been said that mankind has freed itself from the law of natural selection. Man has so evidently made himself master of inorganic nature, and has so completely obtained control over his enemies in the organic world, that the struggle for existence which presses upon other animals so severely has been thought not to affect him. When we remember that the struggle for existence which rules the animal world is based primarily upon the fact that more individuals are born than

can possibly find sustenance, it becomes clear that the question of the struggle for existence as affecting mankind is entirely different from that question as affecting other animals. At the present time mankind is far from having reached the possible limits of population. A great part of the surface of the world which is perfectly able to support millions of human beings is still unpopulated. Until man has multiplied so greatly as to have reached, or nearly reached, the limit of population that can be supported on the surface of the earth, he cannot be subject to a struggle for existence such as that which actuates the lower animals.

Nevertheless, mankind is by no means freed from this struggle, nor from the action of the law of natural selection. It is self-evident that those individuals, those families, and those races that are not fitted for their environment must either become fitted or disappear, and mankind as well as animals must yield to this inevitable law. The problems of human life are vastly complicated by a great number of artificial factors if for no other reason. Man alone has created artificial conditions, and with every successive century these conditions undergo a modification. The relation of mankind to the struggle for existence is consequently undergoing constant change. The problem as it affects the twentieth century is a different one from that affecting the beginning of the nineteenth century, or even the middle of the nineteenth century. Comparing the problem of man's struggle for existence to-day with the same problem two thousand years ago, we find that the conditions introduced by the artificial product which we call society have been so confusing that few facts

in the present age apply to the condition of man in earlier times.

THE HUMAN STRUGGLE FOR EXISTENCE

Originally, men were much more nearly on an equality than they are at present. Practically equal in physical power, with slight variations in mental ability, and with no possibility for the development of that power which comes from the artificial organization of society, primitive men must all have been practically on the same plane. As such they must have been engaged in a struggle for existence with each other and with the lower animals very much like that which the lower animals have with each other. But as soon as organization began the individual ceased to be the unit toward which the struggle for existence was directed. The individual ceased to have success independent of his family, and from this moment selection no longer preserved the best equipped individual but the best equipped family. This was true in early history when the family maintained itself only by being able to hold its own against other families—and it is also true in modern life, amid the inconceivably confusing relations of our great centers of civilization. Even in modern society, while the ability of the individual to hold his own amid his environment is a factor in human struggle, it is after all only that family that can properly produce and rear its children that really succeeds in the struggle for existence. Thus from early times till to-day the family has been the unit toward which natural selection has been directed.

In our study of the relation of man to natural selection, we must bear in mind that this great law

has relation *only* to the power of reproduction. Those animals that are able to produce for posterity abundant and vigorous offspring are the only ones "selected" by this law. All secondary successes and failures—commercial, social, political, financial—must be carefully excluded from the problem, and attention given only to factors that affect man in his powers to leave offspring. In the struggle to fulfill this end mankind has had to contend with three different factors.

STRUGGLE WITH LOWER ANIMALS

The first factor is the problem of man's relation to other animals. The contest of mankind with his larger foes in nature has all but ceased. In his early history, when he was first learning to use crude weapons, we must believe that he carried on a vigorous, prolonged, and perhaps a doubtful struggle with his animal foes. But that time long since passed. Long ago he made himself absolute master of all his noble enemies; so that our very earliest knowledge of him as man shows him clearly superior to the whole animal kingdom. His conquest over animals was complete, and, while it is true that the contest still continues incidentally among men living in contact with wild animals, it is no less true that throughout the history of mankind the human individual is the victor in the test. We can no longer look upon the struggle with lower animals as forming a factor in the problem of human natural selection.

With certain of the smaller animals the contest is not over. When it comes to a competition with animals whose strength lies in their great reproduc-

tive power, it is not always possible even for twentieth century man to prove himself the complete victor. Insect pests still make their ravages, sometimes almost unhindered by the most strenuous efforts of man to check them. Some regions of the world are still uninhabitable because of the abundance of insect pests and everywhere they form the most serious enemies of the agriculturist. Against still lower and smaller animal enemies we are even more helpless. We have just learned that some of our most serious diseases—malaria, yellow fever, etc.—are caused by microscopic organisms which are themselves distributed by other animals. In these directions, then, man has still a battle to carry on with the animal world, and it may be long before it is brought to a triumphant close.

STRUGGLE WITH INANIMATE NATURE

The second phase of man's struggle for existence is his contest with inanimate nature. Among the savage races this is excessively severe. Living, as they do, upon such fruits as they can incidentally gather, and upon the flesh of such animals as they are skillful enough to capture, they are many times brought to actual starvation by lack of food. At certain seasons of the year fruits fail them and animal food is not to be found. Food is almost always scarce among the savage races of man, and starvation is a mighty factor in their struggle for life. The scarcity of food produces the endless, restless migrations of the savage tribes, which can rarely be found for any considerable length of time in one locality, as they are forced inevitably to keep moving in search of new food supplies. The whole history

of the savage races has been one of ceaseless migration from place to place, driven by this eternal force of starvation. Lack of food has limited the size of the families. The impossibility of carrying a large family of children on these migrations, together with the knowledge that the scarcity of food will produce suffering if the family grows too large, lies at the foundation of the destruction of so many helpless babes. Infanticide is to them a means of self-protection.

With the development of agricultural habits, however, man placed himself at once in a different attitude toward this problem of his struggle with nature. Agriculture has taught him to make his own environment. He has reversed the condition of life found among animals and savages. Instead of endeavoring to adapt himself to the conditions of the world around him, man now tries to adapt the world to his own necessities. This complete change in attitude has made possible both civilization and society. From the very beginning social progress has been characterized by a struggle with nature, and by a successful attempt on the part of man to change the conditions of inanimate nature in such a way as to make his own life larger and easier. Agriculture has enlarged the world very rapidly. A piece of land large enough to support a single hunter living upon fruits and captured animals will support a thousand agriculturists, and agriculture has thus increased the size of the world at least a thousand times. This change enables man to live in the same place generation after generation, with the confidence that the land in his possession will continue to bring forth more than a sufficiency of food.

But agriculture has not entirely freed man from his struggle against starvation. To-day, as in early centuries, lack of food is frequently the great stimulus to advance. It has developed the colonizing habits of those nations that, in the last five hundred years, have been gradually taking possession of all the good lands of the earth; for it is not until food becomes difficult to procure at home that individuals think of emigrating. Lack of food produced that outburst of individualism, the French Revolution. Indeed, most revolutions, or, at least, most uprisings of the masses against their rulers, find their immediate cause in a lack of sufficient food for the need of all individuals. Even to-day, with our improved agriculture, we have not entirely freed ourselves from the struggle for existence with nature. Every few years a famine in some densely populated country like India, carries off its millions of victims; and the constant rise in the cost of living is a sure indication that we are still struggling for life with the conditions of nature. Lack of food holds in check the process of multiplication, which even in slow-breeding man is a power so wonderful as to insure, if unchecked, the crowding of the world in a comparatively few years.

Nevertheless, the development of agriculture has freed us in considerable degree from the struggle for food which dominates savage tribes. With our present knowledge enough food is produced each year for the support of all the population in the world. Instead of having a smaller and smaller amount of food for each individual, the development of agriculture is causing a larger amount to be produced. Thus far, at least, the supply of food has outrun the

growth of population. Even at the times of the great famines that destroy their millions sufficient food is produced in the fortunate countries to save the lives of all the famine victims, so that our problem is no longer the production of food but its distribution.

It is apparent that man has thus become freed to a large extent from the struggle for existence, so far as concerns his contests with inanimate nature. But this is possible only so long as he fails to fill the inhabitable world. When the limits of population are reached the conditions will be different. If ever the time comes when the population of the earth is so great that it approaches closely the limit of possible sustenance, then will mankind be brought face to face with a struggle for existence with nature, such as must have been the lot of primitive man. Then will the question as to life be determined by the same principles as those which determine the life of lower animals. But until this limit is reached, until the whole of the habitable earth is covered with a dense population, as dense as can be sustained by the food that can be produced, until that time, man is so far freed from the problem of the struggle for existence as it relates to inanimate nature, that we may look upon him as superior to that struggle which has dominated the development of the savage tribes and has ruled the evolution of animal nature. The diminishing birth rate among all higher races makes it at least doubtful whether population will ever surpass the possibilities of food production.

STRUGGLE OF MAN WITH MAN

If we consider it in its wider sense, it is in the

relations of man with man that the human struggle for existence is most severe. Here the contests are unceasing. Here it is most evident that the law of the extermination of the unfit is even to-day in constant operation. We may first notice how this law acts in relation to human races in actual warfare, and, secondly, how it operates among man in the friendly relations of modern society.

Extermination by Warfare.—The history of mankind has been one of constant warfare. Among the low races of men war is always one of extermination, and such we must believe was the condition existing among primitive races. In more recent centuries captives have been held as hostages for a time, and then generally allowed to return to their own homes. But in all primitive warfare, as disclosed to us by history, by archæology, and by the study of savage races, defeat was death. The great glory of the savage is to have put to death as large a number of his human enemies as possible. This constant warfare we cannot realize to-day, and it is only as we read incidents in history, or read the experiences of travelers in savage lands, that we can get a glimpse of the condition of men in early times, when every stranger was a foe, when man's only friends were those in his own household, when outside he could expect only enmity and death. At these times, when life was a constant warfare, natural selection was in full force.

This constant warring of mankind has brought about a selection of families, kingdoms, and even races of men. The weaker individual has yielded his life to the stronger; the weaker family has disappeared before the more successful rival; the weaker

kingdom has been absorbed by the stronger. Nations have absorbed the kingdoms, and whole races of men have disappeared from the face of the earth when brought into competition with more successful rivals, who for some reason were able to make better use of nature's treasures. The history of the world has been one of constant extermination of those most poorly equipped for perpetuation. The victors in this endless conflict, however, have not been those best equipped for supporting their own life by obtaining food for themselves and families, but, rather, those best equipped for producing offspring and rearing them to maturity.

The factors involved in this process of elimination have been numerous and complex. It is not possible to select any one which can be regarded as fundamental. Certainly it was not the size of the contending groups, for gigantic Persia yielded to little Greece. It was not valor, since the Greeks yielded to the Romans, and no men of any race have exceeded the Greeks in valor. The American Indian disappeared before the white man, but it is an unquestioned fact that the valor, the personal bravery, and the willingness to sacrifice life, shown by the American Indian, have not been surpassed by any race of men that ever lived. The white man who conquered the Indian was not his superior in valor, nor in willingness to sacrifice his life. Nor was it intellect which determined the victor and the vanquished, since it was frequently the less intellectual nation that overcame and eventually exterminated the more intellectual. Nor was it reproductive power. The world is full of instances of a small, slowly multiplying race overcoming and taking the place of those that multi-

ply rapidly. The savage races are vastly superior in their rapidity of multiplication to the civilized races; they sometimes produce children at the age of twelve years, or even younger, and the rapidity of reproduction found among the savage races is not equaled by any civilized race in existence. But this enormous power of reproduction does not enable them to preserve their families or their tribes against the inroads of the more slowly reproducing civilized men. It is a combination of all these factors, together with many others, that has determined the survival of the individual, the family, or the race. The one who succeeds in this long struggle for existence with his fellow man is the one who combines a series of factors that enables him to overcome his foes and reproduce himself with sufficient rapidity, and in *rearing offspring* that will take his place at his death.

The most potent factor in this contest has been the power of concentration, organization, and union. Where intelligence comes in contact with ignorance, or great fertility with a less reproductive power, the victor has always been the united family or race, and the vanquished has been the one incapable of organization and union. The savages who have simply been capable of hanging together in groups of fifty or one hundred have gradually been driven from all the good parts of the earth, and either exterminated or forced to find their way by migration into the poorer and poorer territories, until they are finally crowded off into the southern extremities of the continents, into the almost uninhabited regions of the north, or on a few of the oceanic islands still left to them. Inevitably they are doomed to complete extermina-

tion, for in the future, as in the past, union will overcome disunion, and these fragments of peoples, capable of no lasting combinations, capable of no organizations, will disappear before the advance of organization.

Change of Race Characters.—While the extermination of races has been a factor in social evolution, it has not been the most potent one. More frequently the result of warfare is to destroy certain types of individuals and families within the races so as to produce a profound change in their average nature. The manner in which this has been brought about may be illustrated by considering the effect of migrations upon the Aryan race.

This people was apparently, at the outset, a pastoral race of people, who had not acquired the habits of agriculture. As the result of this kind of life the natural increase in population brought about an overpopulation. When such times came the people were in the habit of starting out in the spring in great companies, and migrating for the purpose of finding new homes. Apparently, several of these great migrating periods occurred in the early history of the Aryans. In these migrating hordes every man was a warrior, and, as was naturally to be expected, each man fought side by side with his own relatives. The people as they started out, were one race, but during their journey great changes must have occurred among such hordes of people. In the first place, only the most vigorous, the most enterprising, and the most ambitious individuals would start with the migrating companies, for those who were weaker, more home-loving, and less ambitious, would remain behind. This first selection left in the original homes

the unprogressive portion of the Aryan race, while the new countries received the more progressive individuals. But as these migrating armies traveled farther and farther they met with many difficulties. The difficulty of obtaining food was constant, and many an individual succumbed to starvation. As they wandered through new countries, inhabited by other peoples, they learned many new customs, and in this way became acquainted with the principles of agriculture.

But a more important change was produced in the character of these migrating people. These migrations lasted many years and always the less vigorous, the less ambitious, and the weaker individuals were crowded out from the ranks and left behind whenever a good spot could be found for the planting of a family. It was ever the most active, the most ambitious, and the most warlike individuals who continued the migration, and by the time they had reached their final home, the remnant of the original band would be composed of a selected class. It would contain only those who had developed the greatest personal vigor, the greatest ability to contend with adverse conditions in nature and with vigorous opponents, the most warlike, the most ambitious, and the class that would be least satisfied to settle down into a quiet life. Those who wandered farthest would be the fiercest, like the Germans. Thus it came about that whereas, when they started on their migrations, the people consisted of one type of individuals, the final companies that settled in their new homes were composed of individuals whose average character was very widely different from that with which they started. The people left in the

original home—the Hindus as generally believed—remained unprogressive and quiet, playing no special part in the history of the world, while those who finally occupied the Western lands—the European races—were a restless people inheriting the character of those who had been constantly selected during the long periods of migration. Thus widely different races of men arose, by selection, from the same stock.

Now, while this simply represents a somewhat uncertain story of a few prehistoric races, something similar has ever occurred even in more recent times; for war has always tended to produce a decided modification of the race. Through the whole course of the centuries warfare has ever brought one people into contact with another, and thus spread education and civilization. War too, at least in the days when every man was a soldier, has led to the constant survival as well as constant mastery of the unruly, uneasy, turbulent spirits; in short, to that class of men that has been the inspiration of steady advance. Compare the conditions of China with those of Rome. In one an enormous country with immense population, composed of people perfectly satisfied and desirous of remaining in constant quiet; with no great wars during their long history, and, as a result, a stagnation which has lasted century after century. Rome, on the other hand, was made up of a turbulent people, in constant contact with the rest of the world through their endless wars, rapidly expanding, becoming mistress of the world and dominating its history. In one case stagnation, in the other constant activity. In the recent history of European nations the contact that comes with other nations through

warfare has ever been a primal cause that has prevented stagnation.

To-day, however, the case is different. Not every man is a soldier, even in times of war; and the tendency now is for warlike spirits to become soldiers and lose their lives, while the quiet, peace-loving men remain at home, thus becoming the fathers of the next generation. Warfare, then, to-day produces results just the reverse of those produced by migrating nations. The nations of modern times are growing more peaceful, more peace-loving—a fact due in part to the elimination of the warlike spirits through the results of war. But selection is still going on, although with the highly developed civilization and the extraordinary growth of our cities the whole condition of the problem is changed. To-day the struggle for existence affects man quite differently from what it did in the past, even in the last few centuries. We no longer find the migration of a nation from one land to another, with all its attendant struggle and extermination. Migrations, so far as they now occur, are of the most indefinite character, and concern only individuals or families, or perhaps, occasionally, a sect of a few hundred people. The family commonly migrates now into new territories, and when a single family migrates in this way the inexorable law of natural selection does not have the effect it had when great hordes of people migrated together. Migration does not now serve as a factor in eliminating the weak and unambitious. At the same time, even now this same principle occasionally comes into evidence. The newer lands of the world, as they have been inhabited by immigrants from the older lands, are, in general, peopled by

picked families that have been instigated to leave their old homes, first, on account of want, but in the second place by an uneasy, roving disposition. The individuals desirous of a quiet life are the ones who remain behind, while those who love novelty, who are ambitious and restless, migrate into the new countries. This it is which, in large degree, gives to the United States and Australia the activity and constant restlessness so characteristic of these two new countries when compared with the older country from which most of their inhabitants originally sprang. Thus, even to-day selection and partial elimination are producing a gradual change in the character of the race. But this is rapidly ceasing to be a factor in human selection, inasmuch as migrations into new territories are becoming less common because they are less possible.

NATURAL SELECTION AS AFFECTING PEACE-LOVING RACES

To-day, in all civilized communities, sufficient food is produced for all, leaving out of account such semi-civilized people as those in India. Starvation is a great rarity, so great, indeed, that, in civilized communities, it is looked upon as a most extraordinary exception. With actual starvation, then, the member of a civilized land has no contest. The struggle for food is not, with him, a struggle for actual life, for in this struggle practically everyone is successful. In the struggle for life every individual is a victor who succeeds in preserving his own life, and, inasmuch as starvation among civilized men is the rarest exception rather than the rule, it follows that, so far as concerns this phase of natural selection, all mem-

bers of civilized countries are victors in the struggle for existence. With each century artificial law is checking more and more the severity of the struggle for existence to which man has ever been subjected. With each successive generation we find greater attempts made on the part of public statutes to enable each one to obtain what he needs and to force the government to protect the individual. The advance of individualism forces the government to try to free the individual from this struggle for life.

Nevertheless, the struggle for existence has not disappeared. If there were no restrictions placed upon multiplication of mankind, the millennium would be an impossibility. In spite of the attempt on the part of man to end this struggle for existence by artificial law, in spite of the immense expansion in the size of his world as the result of better methods of agriculture, the rapidity of multiplication constantly threatens to renew man's contest with nature. For a few years he may live in peace, but in time the growing population will crowd upon the limits of easy sustenance. Man's power of multiplication is so rapid that had it not been checked by various factors, the world, long since, would have been filled to overflowing. But there are checks to unlimited reproduction in mankind and these constitute the real factors of his struggle for existence.

In the civilized community of to-day natural selection is constantly weeding out the least fit and acting upon mankind with a certainty that is as great as in earlier times. But the problem as it concerns the human race to-day is rarely a struggle for the existence of the individual, nor does elimination come from inability to produce offspring. A family or

race that fails to preserve a goodly number of children to adult life is doomed to extermination, no matter how rapidly it reproduces. Families are ever disappearing through lack of reared offspring. Even races are vanishing from the same cause. This principle affects races all over the world. There is a constant elimination of human families and races. The savage races are everywhere being exterminated, the barbaric races are disappearing under conditions that we can hardly understand. Even the Negro race in the United States, at least in the larger cities, in spite of the rapidity of multiplication, appears, according to recent statistics, to be undergoing a decrease in numbers, which, apparently, indicates an extermination.

Selection Among the Lower Classes.—These processes are slow, and we can hardly understand what factors contribute to the success or failure of a family or race to perpetuate itself in modern civilization. A few factors, however, may be referred to as most important, and in their consideration it must be borne in mind that we are discussing the ability to rear offspring, not simply to produce them. The checks to this power of leaving productive offspring act quite differently in the different strata of society. People at the bottom of the scale generally produce more children than the higher classes; but even here the reproductive efficiency, especially the power of rearing children, is reduced by many causes. First, we have excessive work, for it is a well-known fact that excessive physical labor is destructive of the ability to leave numerous offspring. Second, the evils of sensuality remove a large number from the reproductive class. But more important than such

physical forces are the purely sociological influences. In the lower strata of society in some countries the regiment, with its brilliant uniforms, its fascination of glory, draws the young man from the home life and alienates him from the kind of life that encourages the creation of a family. Every move toward building up an army or navy, either by voluntary enlistment or by conscription, is tending to draw away the individuals, especially among the lower classes, from the lines of life which would enable them to leave posterity. Again, in all of our cities social orders, clubs, lodges, etc., are becoming mighty factors in checking the reproductive possibilities of the race. Just as fast as the club or the lodge occupies the interests of the individual, just so fast does his interest in family life and his desire for a family disappear; and thus these social clubs are putting a very decided check upon the reproductive efficiency. The prevalence of alcoholism, together with the influence of the saloon upon the individual, is another check to reproductive efficiency. Whatever position one may assume on this general question of the use of alcohol, there is no doubt that its influence upon mankind decreases the number of vigorous offspring. The reproductive ability is dependent upon the development of home life, and alcoholism destroys home life. Where the saloon takes the men away from their families, where alcohol destroys their interest in the family, the power of rearing offspring is vastly impaired. Again, the universal want which is developed in the lower strata of society has its influence in checking reproduction. While actual starvation seldom occurs, and while every individual, even in the poorer classes, is a

success so far as his own struggle for life is concerned, nevertheless the constant menace of insufficient nourishment is shown in a condition of things which we call want. This is found most emphatically in the tenement districts of our cities. The greatest struggle for existence among men occurs here. But the struggle is not one for personal existence, nor for producing children merely, but for the opportunity of rearing them. In one single tenement house, inside of three years, were born one hundred and thirty-eight children. The reproductive power was great enough, but of these one hundred and thirty-eight, inside of the same three years, sixty-one—nearly fifty per cent—died. In these tenement districts epidemics rage with greater violence than in the better parts of the community. Even the mild epidemics, which in the better communities are hardly regarded as serious, take the lives of thousands of the children in these poorer quarters of the city. Improper nourishment of the children, improper care, improper air, and improper treatment explain it all. Natural selection among the lower classes thus affects the individual to a certain extent by reducing his power of bringing offspring into existence, but still more by diminishing his ability to rear them up to maturity. Rearing children after they are produced is the factor upon which the life of the race is dependent. No race can hold its own that has a large and growing class of "*les misérables*."

Among the lower classes of society mankind has two great enemies to contend with, which determine his struggle for existence. These two enemies are:

1. The *microorganisms*, which produce the epidem-

ical diseases that kill such a large proportion of the individuals born. 2. His *passions*, which give rise to the evils of alcoholism and sensualism, and most of the other evils which weaken and sap the vitality of mankind. Microorganisms and passions are the fundamental cause of the wholesale destruction of children among the poor.

Selection Among the Higher Classes.—At the top of society a different series of facts tends to check reproductive efficiency. Among the higher classes a greater proportion of the children born are reared, but this is probably more than compensated for by the smaller birth rate. The number of children in the family is commonly limited through artificial factors. The first is custom, for in most communities the higher classes have fallen into the way of having small families. A second factor is the great development of social pleasure in our communities, interfering most fundamentally with the family life, destroying to a great or less degree the family love, making the father almost a stranger to his children, and even causing the mother to have so great interest in social pleasures as to leave her children to the ignorant care of servants. We have too the intensity of commercial life, and the attraction of the club to take the father from his family. All of these tend to destroy the unity and the significance of the family, and to decrease the probability that children will be born and properly reared. Perhaps the most important of all is the fact that in the higher classes there is a tendency for marriages to occur later and later in life. Whereas among the lowest people marriages frequently occur at the age of 12 to 14, among the upper classes in civilized communities marriage

is often put off until the twenty-fifth year, or later. It is inevitable that a postponement of the time of marriage will decrease markedly the number of offspring produced during the lifetime of an individual, and will put a check upon reproductive capacity. Indeed, it is only too evident that in the so-called higher races there is growing disinclination to marry. An unmarried woman among the savages is hardly found. Among civilized races the number is constantly increasing. In the higher classes, as well as in the lower, the passions too have a large part in producing race suicide, since they are tending to distribute the venereal diseases, the action of which upon the race is disastrous; for, as is well known, these diseases tend to produce sterility among those who acquire them.

A man and wife who fail to rear to maturity two offspring, to take their places, utterly fail in the struggle for existence, even though they be king and queen of the greatest nation on earth, and are accorded the highest honors of the greatest nation. But the rearing of two offspring is not enough to make one a success in his struggle for existence, for this would only enable his family to replace the father and mother, and in competition with more rapidly producing families this would soon doom his line to extinction. In our communities this gradual extinction of families is always taking place. It is going on constantly, but so quietly that we scarcely think of it. The number of individuals in a family becomes smaller and smaller, and eventually even the family name disappears. If we trace back the history of those living in our communities to-day, we shall find them coming from a comparatively

small number of stocks. If we look through the communities and find out how many individuals pass through life without leaving behind them at least two offspring to continue the race, we shall, perhaps, be surprised at their number, and we shall be impressed with the fact that even in our civilized community influences act upon mankind, producing the constant extinction of lines of descent. This is natural selection, slowly but surely cutting out lines of descent, exactly parallel to that which occurs in animals, even though the facts that contribute to it are so wonderfully different.

These factors, acting in the various strata of society, result in constant elimination of individuals, families, and even races. But elimination is nature's method of producing progress. Thus the human race is by no means exempt from this law of struggle of man with man; and among the confusing conditions of modern civilized society it is as true as it ever was that those individuals continue to exist who are best adapted to the conditions of life in which they live, although the best adapted are not always the so-called higher classes. Man still lives under the influence of natural selection. It is no longer lack of food that eliminates from existence the individual, or the family, or the race. It is no longer over-reproduction that causes the struggle for existence, for with the expanding intelligence and power of mankind the world is still large enough for all the individuals that can come into it, and food enough can be produced to furnish them all with sustenance. His struggle comes now from other causes—from disease, sensualism, and, above all, from the series of artificial customs which he has built up

around himself. These act as barriers to prevent many from making a successful struggle for self-perpetuation; they check the formation of families or limit their size. All these factors are constantly at work exterminating families, and they still control the development of the human race.

CHAPTER X

ALTRUISM

THE conditions under which natural selection acts upon the human race are greatly modified and in some respects almost reversed by the appearance of a new factor. We have noticed in an earlier chapter how the fundamental instinct of a "struggle for the life of the species" has developed in man into altruism and the moral sense, so that man is actuated by this new instinct. It remains now to notice what influence this ethical sense has had upon the development of civilization. The conclusion which we shall be forced to reach is that modern society has been founded upon the moral nature of man. *The social organism is ethical in its tendency and aim.*

ANIMAL INSTINCTS

Among animals evolution is based primarily upon two fundamental instincts, those of self-preservation and reproduction. No other forces actuating animals are equal to these. Not even the mighty force of hunger can compare with the imperative demands of these two instincts. These forces are clearly based upon instinct and not intelligence. With lower animals, certainly, intelligence does not enter into the problem, while with the higher animals instinct, not intelligence, no less clearly controls the actions here referred to. An animal, even though suffering intensely, will contend for his life, because he is impelled by the instinct of self-preservation; like-

wise, an animal in the reproductive act is not influenced by intelligence, since he has no idea of its meaning. The impulse to preserve life and the impulse to perform the sexual act are inborn with the individual, and demand obedience with such force that, without a shred of thought as to their significance, they are universally obeyed by animals. These two instincts together have led to natural selection, which has been the foundation of progress.

THE ETHICAL INSTINCT

Mankind is under the influence of a third additional force which we call his ethical nature, which seems likely to have had its origin in the instinct present among animals that leads to a struggle for the life of a species. Whatever may have been its origin, there is no doubt that it has greatly developed during the evolution of society. Like the instincts of animals, the moral nature of man controls his actions, not by reason but by impulse. The individual who acts because he regards a certain line of actions as right does not argue the question whether he should follow the right course, and, indeed, recognizes no room for argument. He may debate the question whether he will do right or wrong; he may argue as to the results of the action, and may use his reason to determine which of two actions is the right one. But the impulse that leads him to do the right is beyond argument. He does the right simply because he feels that it is *right*, and at this point everyone recognizes that logic is no longer possible. Of course this does not mean that all men obey this feeling of right, but simply that the moral sense, to the extent to which it is developed in different men, is

imperative and admits no argument, although it may not be obeyed. Moreover, we find that this new impulse controlling man is founded neither upon the law of self-preservation nor the instinct of reproduction. In the martyr it certainly runs contrary to the instinct of self-preservation, and it very commonly runs diametrically opposite to the reproductive instinct. Though this new impulse may originally have been derived from the instinct to produce and rear offspring, to-day it has become something quite unique in man, something radically distinct from the other two fundamental instincts which have controlled the development of the lower races of animals. Mankind has, then, developed his civilization under the influence of a new instinct, an impulse of which only the barest rudiments, at most, can be found among animals.

The Ethical Instinct Not Based on Reason.—We frequently hear it stated that there is a force in mankind that leads to righteousness. It is clear that this force is not primarily one of reason. The ethical nature is based upon altruism and consists fundamentally in a willingness to yield self-interest. But nothing is clearer than that the impulse leading to the sacrifice of self is not based upon reason. From the standpoint of the individual, sacrifice is the very height of unreason. So very evident is this that from the beginning, both in practical religious doctrines and in the philosophical discussion of ethics, it has ever been necessary to hold out to man the promise of greater good in the future as a reward for present sacrifice. When we appeal to reason there is nothing which will justify us in asking a man to yield his own interest to another, unless we offer recompense

in some way. This demand for a recompense for sacrifice has been felt in all ages, and has led to the general promise held out to man of rewards after death, which shall make up for the sacrifice of the present existence. Our ethical nature demands sacrifice and our reason equally insists that sacrifice should not be without equivalent recompense. This does not particularly concern us here, beyond emphasizing the point that conscience, from the standpoint of the individual, has no rational basis for its existence.

From the standpoint of its effect on the race also it appears at first that the force tending to righteousness is not based upon intelligence. This new force in a measure reverses that law of natural selection, which among animals has been so necessary for advance. With civilized man it is no longer the weak individual that is necessarily exterminated, while the stronger and better developed remains in existence. On the other hand, under the influence of the moral nature, there is a greater and greater tendency for the preservation of the weak. The erection of hospitals all over the civilized world is a result of the ethical nature, and they preserve the lives of many who would otherwise be exterminated by the rigid application of the law of natural selection. Our inebriate asylums are designed to keep in existence as long as possible those whom natural selection would declare unfit to live. Our jails and our plans of abolishing the death penalty have an almost universal tendency to preserve, to the apparent detriment of the race, many who would otherwise be exterminated as out of harmony with the conditions of social life. Our institutions of charity are every-

where bolstering up the weak classes of the world and preserving them, instead of allowing them to yield to the struggle for life according to the inexorable law of natural selection. The aid given everywhere among civilized races to the lower classes of unfortunates, and extended to the weak races of the world, has a tendency to preserve the weak at the expense of the strong. All these factors have been thoroughly recognized over and over again by all who think clearly upon the conditions of modern society. They constitute a reversal of natural selection. The ethical side of man's nature preserves those who are least fitted to live, and then, by the inexorable law of heredity, their weaknesses are transmitted to the following generations.

THE ETHICAL SENSE ALONE PRODUCES STRONG NATIONS

Biologists particularly have been seriously asking what results may be expected from the reversal of the law of natural selection, since elsewhere in the animal kingdom selection is required, not only to produce, but to retain characters. Weismann has studied this principle, which he calls *panmixia*, and has shown that, among animals, it always results in degradation and weakness. We are forced to ask, therefore, whether such is not the law of mankind as well as of other animals. If so, will not the inevitable result of the ethical law, which preserves the weak as well as the strong, be a degeneration of mankind? Are not our ethical rules fastening weakness upon the race and turning mankind downward instead of upward? The result of such considerations, in recent years, has led some of our biological

students to hold pessimistic views as to the future of the human race, and to tell us that man is going downward instead of upward, as a result of this withdrawal of the beneficent action of natural selection.

In considering this statement, we must point out that there are two factors in human evolution; the first is the evolution of the human body, the second the evolution of human society; and the laws which have controlled the development of the two are widely different. The withdrawal of natural selection may possibly have a tendency to degrade the physical nature of man, although upon this question it is not yet possible to give a categorical answer. But in its relation to society and to the development of intelligence, altruism, even though it be equivalent to Weismann's panmixia, is distinctly elevating. If we look at the history of man in a broad way, we soon learn that altruism has not, after all, led to degradation; that in the history of the past the law of altruism instead of leading to degradation has led toward elevation. The fact is that the general laws of nature are wider than man's feeble vision. Whatever effect ethical custom may have on man's physical nature, nothing is clearer than the fact that those nations in which the principle of altruism has become most developed are the rulers of the world. Nations in which this principle has failed to develop have remained in a lower state of development, or have disappeared before the growing strength of the nations where the ethical spirit has been fostered. History shows us that altruism makes strong nations, and that only by the development of the ethical nature can man rise in strength and influ-

ence. In spite of the manifest fact that altruism preserves the weak, it is equally true that *only the altruistic nations are strong*. Furthermore, it is evident that each century has seen the ethical principles rising to a higher plane, and that the highest nations are those most perfectly ruled by their ethical sense. It is evident, therefore, that the altruistic principle must furnish some elements of strength sufficient to compensate for the apparent weakness which comes from the preservation of those that are least fit. If the application of ethics to nature would seem to produce degradation, what can be the factor in it that causes it to produce strong nations? The answer to this question is, briefly, that ethics alone makes the development of society a possibility.

The history of civilization, from the beginning, has been an attempt on the part of mankind to escape from the continual condition of free fight which characterized the life of animals and of early man. It is true that this advance has been slow. It is true that there have been many relapses, and that, while in one century we may see great strides toward a condition of peace and morality, in the next, perhaps, man has become more savage than before. It is true that, even with the beginning of the twentieth century, we sometimes seem to be farther from the goal than ever. Nevertheless, the development of this principle of altruism, or love, has been a constant one. If we compare the present with any previous century, we cannot fail to realize that, so far as concerns the development of this fundamental law, we stand on a higher plane than did our ancestors. At the present time the principle of brotherly love has a wider and deeper development than at any

previous time in the history of the world, although we are very far from realizing our ideal. Almost the same statement might be made at the beginning of any century. In spite of the various side eddies, the progress toward the realization of the principles concerned in this law has been constant.

ALTRUISM VERSUS EGOISM

Egoism.—Civilization, however, has not been the result of the simple substitution of altruism for selfishness. Had this been the case, history would have been very different from what it has been. Civilization may best be understood as the result of a constant *struggle* between the two principles of altruism and egoism, greed and generosity, or the law of selfhood and the law of love. In this long contest, which we can trace in almost every incident of human history, it seems at first as if the victor were always egoism rather than altruism. At all periods of history the ruling impulses have seemed to be fear and selfishness. This we may see in the early building of the nations, for they were founded upon conquest, which meant robbery, slaughter, and extermination. We see it, again, in the destruction of those nations which fell through the influence of luxury, for luxury is always accompanied by a lack of sympathy, which is a form of selfishness. We can see it likewise in the wonderful development of the Roman Church, the one uniting force of the Middle Ages. Here, what was originally altruism became egoism. Though this church was founded upon the principles of love for one's neighbor, nothing is clearer than that the growth of the church in the Middle Ages was dominated by the ambitions,

selfishness, and masterful authority of its leaders rather than by the spirit of humility and love taught by Christ. Egoism rather than altruism lay behind this mighty force. Even the crusades, that series of events which awakened Europe, although actuated in large degree by religious devotion, was, after all, controlled by the same law of ambition. Had it not been for the ambitions of the leaders, for the love of military glory, for the desire of power, the crusades would hardly have been episodes in the world's history. Again, we find it in the increasing concentration which developed at the close of the crusades. The modern nations were built out of the chaotic fragments of the Middle Ages by the growing central power of the king; and this king, while pretending to act for the good of his people, was actuated fundamentally by the desire for personal aggrandizement. In more recent times we see it in the growth of the money power which has in our day acquired the rule over the world, replacing that of the kings of earlier days. No one questions for a moment that it is selfishness which has been at the foundation of the accumulation of this money power in the hands of the few. In the events of to-day, in the organization of capital into "trusts" and labor into "unions," the same principles of selfishness and greed must be recognized as the active motives. Even our philanthropic movements are in no small degree controlled by the ambitions of their leaders. Probably there has not been a truly "holy war" in history, for all have been dominated from the beginning by the ambitions of the leaders, who appeal to religious fervor or sympathy with down-trodden people, as a motive to incite the enthusiasm suffi-

ciently to make war a possibility. Clearly, selfishness and greed have dominated civilization.

Altruism.—But in spite of all these facts they indeed are blind who fail to see that the permanent victor in this long contest is not the law of greed and selfishness, but the law of altruism. This has become clearer with each century. All civilization is pervaded with this truth, for the keynote of the advance in civilization is the increased value set upon the individual, the increased significance of the principle of sympathy, of justice, of righteousness; and all these principles are part of altruism. It is this slowly developing law that has produced every advance in the progress of mankind. It is this which has curbed the power of the despot, and ameliorated the condition of the poor, leading those in better conditions to extend a wider sympathy to those less favorably endowed by nature and conditions. It is this which has produced the abolishment of slavery, for slavery was a normal condition of early man; and only as the law of love found its way into the hearts of the races has slavery been rendered, first, less harsh, and then abolished. Natural selection would crush out the weak and unfortunate with its inexorable tread, but altruism has gradually brought about a condition where the strong contribute of their strength to the welfare of the weak. It is this law that has elevated the condition of women, for the position of women in society is dependent directly upon the extent of the development of the laws of altruism and sympathy. This same principle to-day is wresting every right that the people possess from those in power. Whether it be political rights wrested from a monarch and an aristocracy, or

whether it be the rights of the laborer taken from the capitalist, in all cases success or failure is dependent upon the principle of love and sympathy. Such a statement may at first appear wholly false. Nothing seems more manifest than that the demands made by labor upon capital result in constant warfare, and that when labor wins it does so because it has been able to obtain its ends by force. The capitalist is not commonly supposed to grant the demands of labor from love, but, rather, because he is forced to do it. When we analyze such victories and defeats we soon learn that, after all, it is the principle of altruism rather than force that determines the final victor. When labor contends against capital it is powerless to stand alone. Nothing is more clearly understood by both the labor agitator and the capitalist than the fact that the victor in these contests is ultimately that side holding the widest sympathies. As soon as labor interests commit excesses that alienate the sympathies of the people their cause is lost; and if they can show the mass of the people that they are unjustly dealt with, their cause is generally gained. Whatever be the immediate result, the final victory is determined, not by the force which the two sides appear to possess, but by the verdict which the general mass of mankind gives as to the point at issue.

Permanent Advance from Altruism Alone.—In holding this position we have reference to the permanent advance of *the race* and not of the individual. The results of many of the contests are clearly determined by force and greed rather than by love and generosity, and are settled by might rather than by right. But it is a clear teaching of history that all

such decisions are sure to be called again in question. We sometimes say that "nothing is settled until it is settled right," and this phrase expresses a mighty truth. When settled right it is settled to benefit the people instead of the rulers, the many rather than the few; and if settled in any other way, the question is absolutely certain to come up again for readjustment. All this is altruism. Nothing is clearer than that the victories won by force can in the end be maintained only when upheld by the wide sympathy of mankind which leads to the insistence that all individuals shall have equal justice. *Permanent advances are made by altruism, never by force.* Force controlled by greed may take initial steps, but unless love comes to its support the structure built by force is sure to fall. Might makes right for a while, but not permanently. Nothing can be clearer to one looking over the pages of history than that here lies the secret of the rise and fall of nations. A nation may be built by might and remain a unit so long as the uniting bond of mutual sympathy and love remains in force. But when this uniting bond is loosened, either by the luxury of the wealthy, the corruption of officials, or the profligacy of the poor, the nation becomes dissolved. We can count upon a nation acting as a unit only so far and so long as its members are bound together by mutual sympathy and confidence.

The progress of civilization has been a see-saw. At one time egoism and at another altruism comes to the front. Egoism is, however, always the quicker in its action. Every man sees his own interests first, and every nation sees first its own glory. Altruism is more like a subcurrent, flowing quietly and only

occasionally seen on the surface. But altruism is the stronger in the end. It alone makes lasting union possible, since it is founded upon the united interest of humanity. Altruism and egoism have been in contest with each other since the beginning of life. Among animals egoism stands preeminent, although many animals are sacrificed for their offspring. But among men a broader altruism is clearly, even if slowly, gaining the contest. Only as altruism has gained a supremacy over egoism has civilization advanced. It is this contest that has founded our system of laws, which would be unnecessary if either greed or love ruled alone. If love ruled alone, certainly no laws would be needed; if greed ruled supreme then man would be on a grade with the brute and would be in no more need of the law than a pack of wolves. It is thus the *contest* that has created the customs of society. Were it not that the interests of the few are in contest with the interests of the many, law would be unnecessary; their interests clash, and in order that harmony should exist, human society has organized its rules and customs to regulate the relations of one to another. It is this contest that curbs the passions of mankind; for egoism demands that the passions be gratified, while altruism demands that they be regulated in such a way as to do no injury to others. It is this same contest that has developed all of our modern laws regarding sanitation, the customs which regulate charity, and, indeed, nearly all the peculiar features of modern civilization.

Civilization is thus an attempt, both conscious and unconscious, on the part of man to replace the old law of struggle with the new law of service. But he

tries to apply this principle of altruism only to his fellow men and not to animals, and only to those whom he regards as friends, not to his enemies. Within the limits of his nation he endeavors to bring about a condition in which fraternal contests shall cease. The most extreme aspect of this new principle is in what is known as socialism, for socialism is primarily an attempt to abolish absolutely this condition of rivalry which leads to personal struggle. Socialism tries to make competition impossible by bringing about a new condition of society where there will be no incentive thereto. Whether it would be successful is not for us to answer here. What does concern us is, to notice that civilization develops only as man succeeds in producing an amelioration of the struggle which man has with man. We can, indeed, almost measure the state of civilization by the state of this personal contest. Social progress has ever been ethical in direction and aim. It has ever been along the line of encouraging the individual to take greater interest in his neighbor, and this principle includes all phases of the ethical nature.

The general upward trend of history has been constant. However numerous may have been its ups and downs, the advance of the altruistic nature of man has been constant and has been parallel with the growth of organization. By ups and downs altruism has advanced. A leader centers in himself the support of numerous adherents, and he may use this power for a time to benefit the people. Then he or his followers become despotic, are overthrown, and the power is consigned to some new centralizing force, and the history is repeated. By successive revolutions the history of man proceeds, but each

revolution leaves civilization in a position to occupy a higher plane than before. Each century settles some questions so positively that they can never be raised again. In spite of the constant forcing of egoism to the front, in spite of the fact that the interests of self are active and quick, nevertheless the principle of altruism, that demands justice and equality of opportunity for all, is more fundamental, and for this reason is slowly winning the contest for civilization. The development of society, though permeated by greed and selfishness, has morality and ethics as its goal, and toward that goal mankind has been progressing from the earliest period when the human family was organized.

WHY IS CIVILIZATION DEPENDENT UPON ALTRUISM?

Why is it that after mankind had developed its physical body under the influence of the law of personal struggle, its further development was dependent upon its separating itself from this fundamental law? How can it be that, while evolution and advance among animals has demanded the rigorous action of the law of natural selection, the evolution and advance of man is possible only when this struggle of individual with individual is checked?

Ethics Places Society Above the Individual.—The answer to this question is that human evolution is social and not organic; and ethics places society above the individual. Ethics leads a man to follow certain lines of action, not because they are best fitted for him personally, but because society in general will be better off if all its members follow certain rules of life. The law of the greatest good for the greatest number underlies ethics; and if we ex-

pand this doctrine a little so that it reads, "The greatest good for the greatest number of all ages," we have the foundation, the defense, and the strength of the ethical laws of the human race. Ethics sacrifices both the individual to society, and the present to the future. It leads man to-day into lines of action calculated to produce the greatest good to subsequent generations. It demands the sacrifice of the adult to the child, and makes the world applaud when a mother yields her life in defense of her helpless babe. As civilization develops the benefit to posterity is more and more recognized as a forcible factor. Savages are guided by their present wants only, and are not at all disturbed by the needs of their future years. They will even cut down a tree to pluck its fruits. It was long in the development of civilization before the idea of sacrificing the present generation to the future was conceived. Even to-day no race of men actually realizes it, and no race is much influenced by this law. We can point out the disastrous influence upon the future of cutting down the forests, or of wasting the coal in our mines; but the knowledge has little effect upon the lumberman or the mine owner, and the consumer does not use a pound less of coal because of such knowledge. Nevertheless, it is evident that this benefit to future centuries lies beneath most of the lines of action toward which civilization tries to bend its customs. If this is true, we can understand readily enough why the ethical nation is bound to triumph in the end, since, evidently, *those nations in which the present is sacrificed for the future will, in the future, be in better condition than the other nations in which the future has been sacrificed for the present.* Se-

lection will in the long run preserve those nations with the highest ethical development, whatever temporary success may come to the nation that is ruled by the law of selfishness and greed.

A second factor in explaining the dependence of civilization on altruism is the fact that civilization would not have developed if organization had not been successfully accomplished. High civilization demands numbers, and a small nation cannot hope to stand at the summit of civilization. An individual living as a hermit has no possibility of mental or moral advance. In small tribes of savages, where no more than twenty or possibly forty individuals are associated together, the possibility of the development of intelligence is limited and civilization is impossible. As we follow through the various stages of savagery, barbarism, and civilization, it grows more and more evident that the evolution of society is dependent upon the formation of large bodies of men, aggregated together in social unity. The size of a nation limits its civilization, and the highest civilization is possible only in the larger organizations. The converse of this is not true, for mere size is not sufficient to develop civilization. Nor is it true that size is needed for intelligence. But it is abundantly evident that the highest civilization demands great nations.

Now, the size of a nation is not dependent upon the reproductive power of individuals, nor upon their valor and heroism as soldiers. All races of men can multiply fast enough to produce enormous nations, if nations could grow by the simple process of reproduction. The size of a nation is dependent, rather, upon the possibility of coordination of its parts and

the holding of them together. The Roman empire was limited in size by the possibility of coordination. After its armies had extended far beyond the limits of Italy there was produced an unwieldy mass which it was impossible to hold long together. Even before it became weak enough to be in danger of destruction it broke into sections because it was too large to be controlled as a unit. With the modern nation the development of means for the rapid distribution of information by steamships, railways, and telegraph has vastly increased the possibility of coordination, and consequently in the twentieth century nations are possible which could not have held together at an earlier date. But in every century the size of a nation is limited by the possibility of a proper coordination of its parts.

Natural Selection Leads to Disintegration.—If we ask for the forces that will make possible a lasting organization, we see, in the first place, that the struggle for existence, as it occurs among animals and savages, tends toward disintegration. It is true that sometimes animals live in peace with their own brothers, though they may be at enmity with other animals. A herd of buffalo lives in internal harmony, having its struggle for existence with other animals and with inanimate nature. Under these conditions a certain amount of concentration is possible, so long as food is abundant. But this is only because of the internal harmony. Whenever the struggle for existence becomes one between animals of the same species there is an inevitable tendency toward disintegration. Among all animals where the exigencies of life lead to a rivalry of individuals there is a tendency for the animals to live solitary lives. The same

thing is emphatically true of man. He cannot use as food the abundant vegetation of the field, but requires the more condensed form of fruits or flesh. Such food is scarce, and from the beginning this fact has led to rivalry and warfare among human races. Such a warlike spirit always leads to disintegration. The nature of some savage tribes is so fierce that every one is an enemy, and such people absolutely fail to have any kind of organization. They are driven apart by this warlike nature and fail to associate even in the smallest groups. The family bond itself is insufficient to hold them together, and as soon as the child is able to care for himself he leaves his family and quickly forgets that there is any relationship between himself and the rest. Under such conditions it is impossible for man to develop into the higher grades of intelligence and civilization. That phase of the struggle for existence which involves the rivalry of mankind and the eternal conflicts which have characterized history is opposed to the development of lasting organization, and consequently of civilization.

Intelligence Leads to Disintegration.—We notice, next, that reason and intelligence also lead to disintegration. Reason results in individualism rather than organization. Reason alone can never give the individual any sufficient grounds for sacrificing his own interests without promise of return. He may logically argue that, if he will yield his interests, society will be benefited and the public better served; but logic gives no grounds for real personal sacrifice. No argument apart from the ethical one of *oughtness* can give adequate reason why one should yield up his personal interests for those of the public. To

sacrifice my own interest for the good of the greatest number can furnish me with no logical, though it does furnish an ethical ground for action. The good of the greatest number does not concern me, and while I may use this as a justification of the dictates of my ethical nature, it never could furnish me with a vital basis for self-sacrifice. It is not reason that draws men into the army at times of great national crises, although it has its influence. Patriotism draws the man from his home and impels him to give his life for the nation. Reason alone would lead him to stay at home and allow others to sacrifice themselves for the things he holds valuable. Reason can never lead man to sacrifice his life for the king whom he serves, even less to sacrifice it for the military glory of the general or emperor who commands him. Reason is eminently selfish. The impulse that leads to patriotism is something very different from logic. The spirit of the martyr is not based upon intelligence or reason. It involves both, but is superior to both. Even in the conditions of modern society it is clear that the impulse which leads mankind in general to refrain from taking another's property is not reason. "Honesty is the best policy" may be the guiding principle of some, but not of most people. While many are deterred from acts of dishonesty through fear of the consequences, certainly the majority are kept from paths of dishonesty by some feeling wholly different from reason and intelligence.

In short, reason lacks the vitality that actuates modern civilization. If mankind were actuated by intelligence alone, civilization would be impossible; for whatever combinations might be produced would

soon disappear. In a social community the good of the individual is often opposed to the good of the race. Beyond doubt it would frequently be for the good of the individual to appropriate to himself property that belongs to his neighbor. But it is not good for society that such actions be allowed, since it is only by mutual trust that society holds together. No logic can convince me that I should be in want and my neighbor in affluence. Hence laws are necessary to prevent theft. But while these laws are logical enough in their relation to society, they are not always logical as they relate to the need of the individuals. They are obeyed, sometimes, indeed, through fear, but commonly from some other motive. In the following lines of action which lead toward unity each individual is actuated by impulses quite foreign to his intelligence. He follows his ethical instincts.

SOCIAL EVOLUTION FOUNDED UPON ETHICS

By this time it is clear where we must look to find the force which has been at the foundation of the organization which has resulted in civilization. Neither the laws which have developed the animal kingdom, nor that attribute of man which has been regarded as his most distinct characteristic lead toward organization. The law of struggle and intelligent actions are both disintegrating in their tendency, and neither can be regarded as the basis of social evolution. It becomes evident, therefore, that we must find the uniting force which has been at the basis of organization in the ethical nature. Altruism, the principle that gives man sympathy with his neighbor, that urges him to yield some of his inter-

ests to those of others, lies thus at the basis of civilization. The ethical side of man's nature is the foundation of social evolution. Whatever may have been the origin of these instincts, they have led in mankind to a notion of right and wrong, and to the feeling of oughtness, both of which are fundamental motives in human action. The development of altruism has led to a feeling of obligation and duty, first, toward the child, then toward the parent, later toward the chieftain, the king, the emperor, and finally, the ultimate end of all, toward God. It involves a sense of duty toward something in all cases. It is this rather than the fear of consequences that leads the majority of men to avoid theft or dishonesty, or injustice toward their neighbor. While fear of punishment may with many people have its influence, it weighs little with the mass of mankind in comparison with the stronger force of the feeling of duty. It is this that binds together the members of a family, that unites families into tribes, and holds tribes into a sufficiently close and permanent union to form kingdoms. It is this alone that makes possible the gigantic associations of man that form nations, since this it is that induces man not only to make but to obey laws.

Altruism does not produce centralization, but it preserves organization. Whenever egoism has obtained the mastery it has resulted in the degradation of the people and the eventual disintegration of nations, while the elevation of the ethical side of man's nature has resulted in the growth of nations and the advance of civilization. The factors which are commonly the precursors of national destruction are luxury, licentiousness, indolence, alcoholism,

effeminacy, despotism, and the like, and these are all phases of egoism. Practically every decline of nations may be traced to a decadence of the principle of altruism and an increase in egoism. Sometimes it has been the egoism of the people, who become more and more centered in self-interests and less and less willing to yield anything to the good of the country or society. More commonly it has been the egoism of the ruling classes, who cease to remember that the lower classes exist. The former results in decay, the latter in revolution. In all later centuries, at all events, a ruler or a ruling class has commonly obtained his or its power by promising an increased benefit to the people, and their strength has been simply that which has been given them from below. But if, after the power is obtained, the promises are forgotten, and the ruler tries to rule for self-aggrandizement, the inevitable result is revolution. Only as the government rules for the masses can its foundation stand.

Ethics Demands Sacrifices.—Ethics places the race before the individual. In the relations of modern society it frequently happens that the good of some individual is in opposition to the good of society. Viewing the subject from the standpoint of the advantage to the individual and leaving out of consideration all reference to life after death, it is perfectly clear that the interests of the individual are frequently opposed to the interests of society. Many a time in life it would be of worldly advantage to the individual to commit a theft or to obtain by the power of his superior strength or intelligence certain advantages which others possess and which he lacks. But ethics forbids such actions, even though

they might be done in absolute secrecy. Many a man has lived a life of prosperity upon ill-gotten gains; but ethics tells us that, in spite of the advantage which comes to him, such a course of life should not be followed. Ethics constantly insists that we should yield to the interest of others some things which we could easily obtain for ourselves. The sacrifice demanded is real and not imaginary. Nothing is surer than that ethics sometimes forbids the strong man to use his strength to obtain the necessities of life. He may not rob another of a loaf of bread, even to save himself from starving. A man of superior intelligence is not allowed to use this intelligence in all ways to obtain the things he needs. He may not obtain his living by cheating his fellows, even though this should give him a competency. The spirit that underlies ethics demands of an individual the yielding of many things which he could readily obtain for himself by his own power.

If it be said that this simply means that ethics asks us to sacrifice a present good for a future advantage, the reply is that this is not true. Of course frequently it may be true that in yielding his present desires the individual is only working for a future greater good. But in a vast number of instances, where the demand for sacrifice is just as cogent, the sacrifice is complete and involves no promise of return. Many a man lives a whole life of sacrifice, and to the day of his death is constantly yielding to others things which he would like for himself, and which would increase the value of his life to himself. The monk, in the Middle Ages, when he went into the monastery undoubtedly sacrificed permanently many good things of this world which people in general

recognize as belonging to the heritage of man. He gave up his life to his sense of duty. Many a man to-day devotes his life from early manhood to the service of the poor, to persons far below him in intelligence and value; and in such cases there is no possible question of any recompense during his life. His life is spent in poverty and discomfort when his abilities would easily enable him to obtain comforts. If he only put his efforts in the direction of self-seeking instead of sacrifice, comforts and even luxury might be his. A soldier gives his life to his country, and when called upon to lead a forlorn hope offers it cheerfully with no thought of recompense. In all these cases there is no possible claim of a temporary sacrifice for a future good unless we find that good in a future life. To society it is a permanent advantage, but to the individual it is often a direct disadvantage to follow the dictates of ethics. The principle of altruism, which rules the higher races of man, demands that mankind make sacrifices, and the sacrifices it demands are actual ones. Only by sacrifice can we follow the dictates of ethics.

THE RELATION OF RELIGION TO THE EVOLUTION OF CIVILIZATION

Universality of Religion.—By no means can our intelligence, or even our instincts, be brought to believe that justice can demand one individual to yield his interests to another, without at the same time providing for a proper recompense. While we feel that the law of sympathy and love, which demands sacrifice, is fundamental in the nature of man, we feel with no less positiveness that the laws of justice are inherent in the nature of things. Justice insists

upon a final recompense for sacrifice. Here it is that we find the greatest significance of religion in its relation to the history of man. Religion concerns the relation of man to the unseen world, and has had its place in practically all races of men. It has had its foundation usually, if not always, in regulating worship and sacrifice and not originally in its endeavor to regulate conduct. To-day we regard the regulation of life as the primary object of religion, but we must not forget that this was not its original object. While religion and morals have, especially in later centuries, been closely associated, they have not been identical. Indeed, sometimes the grossest immoralities have been admitted as part of religious observances. This has not been confined to savage races and savage rites, for anyone who will carefully read the history of the European religious rites in earlier centuries will see that too frequently, indeed almost constantly, religion has been totally disassociated from right living. Its original purpose seems to have been a proper regulation of sacrifice and worship, which should place the individual in proper relations to the unseen world.

It is a very significant fact that some form of religion has developed in nearly all races of men. But the foundation of these facts cannot be discussed here. It is, however, very important for our discussion to remember one primary feature. The human mind demands that in some way justice shall be meted out to the individual. Therefore from the earliest times man has insisted that in some way a proper recompense should be given to each for his good or bad actions. Inasmuch as many of man's actions cannot possibly be recompensed in this life,

we have here one of the logical grounds for the belief in a life after death, where rewards and punishments can be received. Nearly all races have such a belief, and while the belief in immortality may be accounted for in various ways, herein lies one of the most fundamental arguments for this belief and also one of the reasons for its universality. Justice demands some method of righting the manifest injustice in this world. From the very earliest period, among the lowest savages as well as the higher races, the demand for sacrifice of the individual has been enforced by a belief in the supernatural.

Religion the Foundation of Strong Government.—This feeling has been constantly appealed to as the justification of authority. Religion has ever been the very foundation of government. Why is the individual willing to give obedience to the king? Fear of the results of disobedience, of course, contributes to this willingness; but without the promises of religion there is nothing to make one ready for the extreme sacrifice of life, which is so frequently demanded. Among savages chieftains and leaders appeal to superstitions and the fear of the unseen world in order to influence their subjects to obey commands. In all early races the chieftain is not only the military leader but he is also the religious head of the race. The people feel that he is the propitiating medium between them and the dreaded unseen world, the fear of which influences them to yield obedience to this chieftain, to sacrifice their goods, and even life itself. Because of this belief, that good deeds will be rewarded and evil ones punished after death, the chieftain of a savage tribe is able to control his subjects. Throughout the whole

series of patriarchal nations the same is true. The monarch of such a nation is regarded as divine, or, if not actually divine himself, he is thought of as having such a close relation to the unseen powers as to be the medium by which his subjects may be reconciled to these objects of dread. This willingness to sacrifice all interests has proved the feature most essential for the organization and maintenance of a patriarchal nation. This feeling of dependence upon the supernatural has produced that union among the members of a nation that in itself is strong enough to enable them to hang together as a unit. It was this which gave the early monarchs their power. In the communal nations too we see the same principle working itself out in a different manner. The older races had their druids—their priests as a court of final resort—whose dictates were regarded as divine. This fear of the supernatural enabled the Roman Church, during the Dark Ages, to obtain its mastery over the world, since all Europe looked upon the church as the mediator between this world and the next, and all listened to and obeyed its mandates, even to the extent of deserting the standard of their monarchs. If we ask what were the feelings which impelled the people to obey the dictates of the church, we cannot fail to conclude that they were all founded upon the belief that for the good and evil done in this world there is to be a recompense in the world to come. This made men feel that the temporary good or ill of this world should not be counted against the permanent rewards or punishments which were to come later. This belief gave the vitality to Mohammedanism. The complete readiness to sacrifice life which characterized the soldiers of Islam has ever

been a wonder. The foundation of their remarkable eagerness to sacrifice life was their absolute belief in an immediate reward in a life after death, which made the sacrifice of life appear as nothing. It was the promise of paradise, with its houris, that nerved the sword of the Mohammedan. Such power did this belief give to this mighty force that, but for an accident, it would have overrun the Western as well as the Eastern world. Even in the Western nations the monarchs who have ingrafted their power upon the communal system have supported their claims by means of divine right. In modern times the inspiration of this feeling is somewhat weakened, but it still actuates the majority of mankind. It still makes martyrs. From this standpoint it is easy to see why monarchy has, even in Western nations, been so desirous of insisting on the divine right of kings. This divine right is only one phase of the belief that the king is a mediator between the natural and the supernatural, and that only by obeying him can the individual be sure of the permanent reward which he feels is promised as a recompense. It furnishes the king with the only logical reason for his inherited authority.

Religion, then, has had a very significant relation to the progress of civilization, perhaps more intimate than any other single factor. Even in its earliest phases it taught the dependence of man and the necessity of yielding to higher authority. By emphasizing supernatural powers it emphasized obedience. It has insisted upon the necessity of sacrifice, has taught of supernatural powers that demand obedience, and has told of rewards after death as recompenses for sacrifices in this life. Its great

function in the history of man, then, has been to teach the duty of obedience. Society is founded upon the willingness of the individual to yield some of his present desires to the good of the community or to the interest of the future. Without this yielding to authority, kingdoms and nations would have been an impossibility. Obedience is the keystone of government. When we recognize that religious beliefs have always enforced upon the masses the spirit of obedience, that monarchs have always tried to support their authority by the divine right; when we remember that all people engage in religious rites before entering upon battle, and that the greater their faith and fanaticism the greater their willingness to sacrifice life in the contest, then can we readily see that religion has been the vitalizing force of social development. The strongest nations of history have been those whose religion was the most vital, controlling most completely the lives of the people. The loss of religion has always been followed by disintegration. Even in the nations of antiquity this was evident. Our discussion of the principles underlying organization would seem to show that this must always happen. If we take away from a people their religious belief, we take away from them the logical reason why one individual should yield to another for the good of society or country. Patriotism is commonly founded on faith. We may point out to a man, logically, that his nation would be benefited if he would be willing to sacrifice his own interests in behalf of that nation, but we cannot give him any reason why he, the individual, should have any care for such a fictitious thing as a nation. We can logically show him the

advantage that mankind of the future will receive if each follows certain lines of actions. But such arguments amount to little when the individual is confronted with the question whether he himself shall take a good thing that is within his grasp or leave it to another. Logic alone never leads one to follow conscience. The loss of religion deprives a nation of the greatest centralizing factor which has united it into a unit, and such loss will tend toward disintegration. Intelligence furnishes logic, but religion furnishes vitality to a nation, and a nation must have vitality to hold the people together whenever there comes a strain of clashing interests. No nation has hitherto succeeded in becoming great unless its people were inspired by some kind of religious faith. Religion has been a mighty force in the evolution of society, since it has furnished a vital foundation for altruism, and altruism is the one force which makes possible a continuation of organization. No one can predict the future, but, judging from the past, the nations of the future are to be those in which the religious faith remains in the ascendancy. Religion has been the centripetal force of society, and irreligion has always resulted in disintegration. Religion means organization and irreligion disintegration. The anarchist can have no religion, for he denies the cogency of the authority of anything except his own inclinations, and this is fatal to religion. Religion and civilization have ever gone hand in hand.

One must not infer from the foregoing that religion alone is sufficient to make a powerful civilized nation, or to develop civilization. Evidence to the contrary is abundant enough. Religious faith of the

most extreme type has been found among many a people who have developed neither force nor civilization. The Hindus have faith enough to lead to the utmost sacrifice, but they have counted for little in the world history. Spain has always retained its allegiance to religious teachings, but has ceased to be a world power. Abject subservience to the religious teachings of the priesthood has a tendency to check progress. The religious authority, like all other types of authority, unless checked by opposing influences, tends toward stagnation. But with all this clearly in mind it is evident that in all ages religious faith has furnished the vital force needed to produce that obedience to authority without which the king could not have built up his power, and without which the nations would go to pieces. *Religion is the cement that binds together the fragments of which the nations are composed, and which prevents their breaking to pieces under the influence of contending interests.*

CHAPTER XI

SOCIAL EVOLUTION AND SOCIAL HEREDITY

WE may now return to the question raised and partly answered in an earlier chapter as to whether human evolution has been based upon organic or social heredity, and hence to what extent it has been dependent upon the same laws that have guided the evolution of the rest of the animal kingdom and to what extent upon new laws of its own. That evolution must have been founded upon heredity is self-evident, since this is the only force that enables one generation to receive characters from its parents and to pass them on to the next. Moreover, it has become evident from the study of the last quarter century that the evolution of animals below man has been due to the laws of organic inheritance. Since the lowest animals seem to learn nothing from experience, it follows that whatever characters they possess must have been transmitted to them at birth by inheritance. Among the higher animals below man there seems to be some capability of learning from experience, giving a possibility of a slight amount of social inheritance. But this is so slight that it cannot have any considerable effect upon the evolution of life. With man, however, this capacity of learning by being taught is so great as to constitute a large factor in his life. Social evolution has evidently been the result not wholly of organic inheritance but in considerable part of social heredity.

SUMMARY OF SALIENT CONCLUSIONS

It will make this discussion clearer if we briefly summarize at this point the salient conclusions reached in the previous chapters as to the history and trend of social evolution. The more important of these conclusions are as follows:

1. Social evolution has been characterized by constantly growing organizations.

2. With the increasing size of organizations there has been a corresponding increase placed upon the value of the individual.

3. Organization has been made possible only by the possession of language, and this has been developed from small beginnings, slowly step by step, as man has laboriously constructed it by experience and teaching.

4. The all pervading law of natural selection still acts upon the evolution of the human race with an irresistible force. But its action is so profoundly modified by the artificial conditions introduced by society that it sometimes fails to be recognized.

5. Social evolution has, however, not been brought about by natural selection or by selection at all but by the action of the ethical nature which, since it demands sacrifice, frequently acts in apparent opposition to the fundamental laws of self-preservation and selfhood that controls the rest of the animal kingdom.

6. The ethical nature is based upon instinctive impulses founded in the nature of man.

7. Under the influence of developing society the ethical instincts have universally produced codes of morals which guide the lives of members of society

in such a way as to make harmony a possibility. While these codes of morals have necessarily a few fundamental points of likeness among all men, in most respects they are as widely divergent as are the social conditions under which they have developed.

CIVILIZATION A PURELY ARTIFICIAL PRODUCT

We must first point out that civilization is simply an artificial product, created by man and not built into his nature. Social evolution has not strictly been an organic one, but something different from all other phases of evolution. Animal evolution, in general, has been connected with anatomical and structural changes in organisms. The zoologists have studied evolution almost wholly from the standpoint of structure. They have tried to show how an arm may have developed from a leg under the conditions of natural law. They have tried to show how the leg of early reptiles may have become changed by adaptation to new conditions until it developed into a wing; or how such a complicated organ as the eye may have been built up, step by step, from simple organs with a different structure and adapted perhaps to a different purpose. Such problems as these constitute structural evolution, which zoologists have of necessity been studying. They have studied this side almost exclusively, since the structures of animals and plants lend themselves readily to the scientific method of investigation. The size of an organ may be measured, its shape described, and its homologies drawn. This has been the basis of the discussion of evolution which was inaugurated by Darwin.

Moreover, instincts, which represent phases of evolution seemingly radically different from anatomy, are in reality based upon the structure of the nervous system. What can seem more unlike than structure and instincts, which are habits of action? But when we come to analyze these instincts we learn that, after all, they are only outward expressions of the structure of the nervous system, and as such they are inherited and not learned.

That this is a correct method of viewing the problem may be rendered apparent by a consideration of the conditions under which instincts appear in the individual. If the egg of one of the lower animals be removed entirely from contact with its parents, and if the young be reared without any knowledge of the habits or instincts of its parents, the animal will universally pass over the same line in its development as did its parents, and will develop instincts practically identical with those of the animal from which it sprang, even though no intercourse has taken place between the parents and the offspring since the production of the egg. Many a bird leaves its eggs to be hatched by the heat of the sun, and yet all the young develop independently the instincts of their parents. The duck hatched in the incubator goes to the water while the chick avoids it. The fish commonly leaves its eggs to be hatched by the heat of the water, and yet the young, who have never seen their parents, develop their instincts. The young salmon seeks the ocean and later comes back to the river for spawning, just as did its parents. The same would undoubtedly be true of mammals if it were possible to separate the offspring from the parents. This is not so easy with mammals as with

lower animals, and yet every one knows of a sufficient number of instances of young mammals being brought up upon artificial food, to convince him that, in spite of the lack of contact with their parents, they develop identical instincts with those of their race. Even the complicated instincts of the social insects are included in the same general law. The common bumblebee produces eggs in the fall. In the spring, under the heat of the sun, they hatch each egg into an individual, that has never seen its parents. This individual begins at once to follow the instincts of the race, builds for herself a nest, and in the course of a few short weeks produces a new community with the individuals differentiated and fully supplied with the normal instincts of the species. Instances might be multiplied *ad libitum*, but they are hardly necessary. These few are sufficient to show that the adult animal, including its instincts as well as its structure, is represented *in the egg*. The instincts are a part of the organism, and even in the egg there is a structure which will inevitably develop an organism showing the numerous instincts as the result of its delicately adjusted machinery. This does not necessarily mean that there is in the egg a structure as complicated as that of the adult. Over this question biologists are still in dispute. It simply means that in the egg there is a structure of such a nature as to lead inevitably, under the influence of normal conditions, to the regular structure of the adult, and this includes the varied machinery upon which are dependent the instincts, as well as the bones and muscles. The whole problem is one of organic structure.

The instincts which develop in animals may be

complex indeed and yet all based upon inherited nervous structure. Consider the marvelous habits of the ants in their colony or of the bees in their hive. Everyone has read of their well-regulated domestic economy, of their curious habits of making war, of capturing their enemies young and rearing them as slaves, of their habits of keeping domestic animals (plant lice) for their own use, of their planting the spores of fungi in order to reap a crop later for food, and of the many other curiously interesting customs that remind us forcibly of human society. The comparison between such conditions and human society is indeed striking; but in one respect it fails, and fails so radically as to destroy the parallel entirely. *The habits of ants and bees are clearly and surely inherited by organic inheritance.* The ant never needs to learn how to do its work, or even what to do. Immediately after birth it begins to perform its natural duties practically as well as it can after extended experience. The ant does not learn from experience, and, moreover, it acts blindly, without even a knowledge of the purposes of its acts. We call its actions *instincts*; whatever we may call them, it is evident that they are born with the animal and are thus transmitted by organic inheritance. They are incorporated in the germinal substance and are therefore transmitted to generation after generation with seemingly little variation.

In sharp contrast to all this stands the problem of the customs of the human social organism. Although the instincts of the ant may be only the outward expressions of an inherited nervous structure, this cannot be said of the characters of the human society. This may be made clear by contrasting the

development of a man with that of other animals along the lines just mentioned. Suppose we could bring up a child entirely without contact with its parents or any other members of the race to which it belonged. Or even suppose that a child could be brought up without acquiring the one human attribute of language; what would be the result upon the individual thus influenced? Of course such an experiment as this is an impossibility, and we can judge the results only from inference. But the inference is clear enough, and probably no one will ever hesitate to regard it as correct. We know positively from observation that the intellectual nature, and even the moral nature, of an individual is closely dependent upon the conditions under which the individual is reared. We know that a child brought up under the influences of an English community develops different qualities from what he would develop if he had been brought up under the influence of the Turks. We know of instances where European children have been stolen from their parents at an early age and brought up amid a tribe of savages. These examples show that such individuals acquire not only the customs and habits but also the methods of thinking, and even the moral instincts of the human beings with whom they have been in contact during their early years. The intelligence, the method of thinking, even the moral sense and conscience of the individual, are dependent in large degree upon the character of the people with whom he is placed during his youth. We must unhesitatingly conclude that all these factors are stimulated to develop in the human mind largely, if not wholly, by the action of its environment. These facts are

emphatic enough to tell us quite certainly that if a child could be brought up isolated from all other human society, he would be found when adult to be lacking in the distinctive attributes of man; at least without any of the characters that constitute the social individual. He would be what is sometimes spoken of as a "wild man"—just a little distance removed from the brute. Intellectually and morally he would be devoid of the very characters that distinguish social man.

From these considerations it is evident that social evolution is something unique. Instincts are indeed only the outward expression of nervous structure and nervous adjustment. The communal customs of the bumblebee are represented in the egg from which the individual hatches. The problem of the evolution of instincts is thus, in its last analysis, a problem of structure, like the other phases of evolution that biologists have studied, and is dependent upon organic inheritance. *But the human civilization is not present in the human ovum, nor is it present in the nervous system of the newly born infant.* It would never develop in a single individual if he were left alone. It is something that is forced upon him by the molding action that comes from the conditions in the midst of which his mind develops. It has always been and still is something entirely external to his organic nature. Civilization is not a part of man's body, nor yet of his brain. It is an *artificial product* which he has created and which he hands on to his offspring by other means than organic heredity.

ORGANIC AND ARTIFICIAL CHARACTERS IN MAN

Herein lies a fundamental error in some of the

attempts made to compare human evolution with that of animals. Writers have failed to see that the problem of the evolution of civilization and society is totally different from that of the evolution in the lower realms of nature. The one is an evolution of the organic nature, and the other the evolution of a purely artificial product. It may be that a certain parallel can be drawn, but the utterly different nature of the two should convince us that they are controlled by different laws. Man is endowed at birth with certain innate powers, but from the very day of his existence there is being added to them a large and ever-increasing number of artificial or acquired characters. These are impressed upon his nature by the action of his environment. The same thing is true, to be sure, of other animals, but the relative importance of these two phases of nature is different in man and animals. Among animals the innate powers, including those of organic structure and those of instinct, are by far the most important, while the new features that are added during life, as results of the action of environment upon them, are comparatively unimportant. With man, while the powers with which he is born are certainly important, the factors added to his nature, especially his mental nature, by the action of the environment upon him, are much the greater and become in adult life by far the most important part of his attributes. Since such attributes are acquired rather than congenital, they have rarely entered into discussions as factors in evolution, inasmuch as they are not transmitted by heredity as ordinarily understood. But, as we have seen, they are transmitted by social inheritance.

CIVILIZATION DUE TO ACQUIRED CHARACTERS

A civilized community becomes in this way a series of secondary forces acting upon man. Man inherits a plastic nature which is modified by these secondary conditions until the mental powers of the adult become quite different from what they would be under different artificial conditions. Civilization is thus simply an accumulation of experiences which can be artificially taught, and conditions which can be artificially and intentionally handed on from parent to child. The adult must be looked upon as only in part the result of that kind of organic evolution which has characterized the development of the rest of the world. His body has been the result of an evolutionary process similar to that found elsewhere. His instincts also come partly under the same category, and have likely developed under the same laws as the instincts of other animals. Moreover, his mental capacity must be recognized as due to the same cause, for his mental power is due, as is believed at all events by scientists, to the structure of his brain, and this is something that has been developed by organic evolution, and is a matter of inheritance. But the *adult* man possesses far more than he inherits by nature, much of which is the result of secondary modifications of his innate nature. He must be looked upon largely as a result of the action of his personal environment upon his plastic organism. Even his body is to a considerable extent due to this environment. All are familiar with the numerous little deformities in the structure of the body of man resulting from peculiar fashions, such as the wearing of tight shoes, etc. These show

us that adult man, even structurally, is in some degree the result of the environment which he has created. More forcibly is this true in regard to his intelligence. A large part of the mental characteristics of adult man are due to his acquiring the use of speech. How feeble would be our mental equipment if we could not use language! But the development of the power of speech is simply a matter of environment, due, not to the innate characters of the individual, but to the environment in which he is placed. The education of the brain during youth is necessary for the production of an adult fitted for our civilized communities. Every advance sees a greater and greater appreciation of the necessity of educating the individual, and every age sees the number of years given to this education increasing. But education is nothing more than grafting a large number of acquired characters upon the plastic innate attributes of man. Men have, of course, mental powers which are organic and inherited. But the use they can make of these mental powers depends upon the tools they have to work with. By tools we have here reference to language, the multiplication table, writing, printing—to education in general; in short, to social inheritance. Civilization, we must remember, is due to the powers of the *adults* that compose a community and not to the attributes of children. Thus civilization is based upon the acquirement on the part of each individual of a series of characters not inherited in the ordinary sense from previous generations but acquired anew by each individual.

Indeed, this phenomenon which we call civilization is of a high grade only when the artificial becomes

highly developed. It is only among nations where the town or city plays an important part in molding the characters of the people that this phenomenon which we call civilization develops to its highest point. Speaking broadly, we may say that the highest civilization is found in cities. To be sure, in cities and towns there are many characters which we regard as excessively low. Criminals flourish to a greater extent than in smaller communities, and the ignorance and brutality of the slums are proverbial. But these facts do not interfere with the general conclusion that the advance of civilization, and even the development of moral nature, has been closely associated with the organization of towns and cities. In such communities alone do we find a high division of labor, one of the primary factors of civilization. Refinement and culture are not as a rule found among primitive peoples, or in small villages: neither are they found among hermits, pioneers, or isolated farmers. Nowhere do they become as highly developed as in the large cities. In the city education, upon which civilization is growing more and more dependent, reaches its fullest significance. Indeed, it is impossible for educational systems to develop in country districts, and large communities alone present a possibility for the education which lies at the basis of modern civilization. Civilization has, indeed, developed parallel with the towns. The ancient Aryans had no towns, but lived a scattered life over a sparsely inhabited country, and their civilization was of the very lowest order. They developed none at all until they were brought into conditions where the city or town began to have its influence upon the character of the people. At the

close of the Dark Ages of this Aryan people, as the modern nations arose from the barbarian fragments, the civilization of the advancing races uniformly emerged from their towns and cities. It was not until these towns and cities were organized and began to grow in influence and power that mankind really emerged from the Dark Ages into the age of civilization.

A city is certainly not a part of the organic inheritance of man. If a lot of individuals could be removed from their parents at birth and develop without contact with cities and towns, it is certain that they would not, as the ants do, organize the social customs of their parents. The communities of New York, London, and Peking are quite different from each other; but the differences are surely not ingrafted into the nature of their inhabitants in such a way that they will develop in the children independently of environment. The child is simply born with certain social instincts impelling him to associate with his fellows, and with a plastic nature capable of being molded in an infinite variety of directions. As long as individuals are placed in the same environment they will be generally molded in much the same manner. A million of children growing up in a similar environment will become quite alike as adults; but their characters will be alike, not because they have inherited them from common ancestors, but because they have been imprinted upon the plastic natures of the individuals by a similar environment. Civilization is thus a purely artificial product external to human nature.

SOCIAL AND ORGANIC INHERITANCE IN MAN

Organic Heredity.—We now come to the specific question of what man owes to organic and what to social heredity. We must recognize that man possesses a body of great value. An upright position, a mobile hand, a large brain have all been of the greatest service in developing his civilization. All such characters he, of course, receives through the action of the same laws as those by which animals have all received their physical characters. Man also possesses unusual mental plasticity, a character evidently depending upon his large brain. That civilization is dependent upon these mental powers is self-evident and hence, so far as social evolution is based upon the possession of highly developed mental powers, it has been dependent upon organic inheritance, which has given man a large brain and unmatched mental ability.

But we have learned that human social evolution has been primarily founded upon the ethical nature rather than the mental, and the question of the inheritance of the ethical instincts is thus of special significance.

Moral Codes.—It is evident that moral codes are the result of social inheritance. We have learned how the moral codes of the different races of men have been undergoing a slow but constant change, and that they are to a large extent artificial products. Codes have arisen as the result of the association of men into complex groups, a condition that has demanded the development of moral codes to make social life a possibility. This is abundantly proved by the great variation in the codes of morals of different races,

the moral code of each race accommodating itself to the customs of its society. In modern nations the whole series of actions toward which the ideas of right and wrong are directed has been built up by social heredity. These moral codes have slowly developed. Whether or not the higher civilized races have a higher moral sense than the lower, they certainly have a much more developed set of moral codes, and these determine the moral status of individuals. Rear two men with the same attributes under different environments and they will develop a different moral tone. It may be that they would develop an equal moral sense of the urgency to do right, whatever the conditions in which they might be placed; but they would apply that sense differently according to their environment. Educate them from birth in the family of a Turk, and they would acquire Turkish notions of what is right and wrong which would be quite distinct from the ideas of the Englishman. Educate them from birth in a Chinese family, and their moral nature would become different still. Educate them in a savage tribe, and their ideas as to right and wrong will be those of a savage. These statements are abundantly proved by instances. In each case the moral sense may be equally clear and strong, but the environment determines the application of the moral sense to practical life. In short, moral codes are clearly the result of the environment. They are not inborn but learned by each individual from his surroundings. They are transmitted by social, but in no sense by organic heredity.

The Family.—Even the question of the foundation of the human family, we must recognize, is a matter not wholly of organic, but to a large extent of social

inheritance. The love of the parents for the children, as we have earlier noticed, is really the foundation stone upon which the human family has developed. But we have also seen that the reason that this becomes so especially keen in the human race is because of the long-continued sojourn of the parents and children together. This is due to the long-continued infancy of the human race, and to this extent it is based upon the organic nature of man, which comes, of course, from his organic inheritance. But there is no question that the keenness of love, and therefore the willingness of the parents to sacrifice their own interests to those of their children, through a long continued period of time is due to the constant association of the individuals together. It is the contact, the social relations of parents and children that develop the parental and the filial love, which is the foundation of the human family. In this way we see that even the fundamental phase of society, the formation of the family, is, while founded indeed upon organic traits, due primarily to the development of new impulses that come from the teaching of social inheritance.

The Moral Sense.—The application of moral nature to the affairs of life, the practical side of conscience, is thus dependent upon the environment of the individual rather than upon his organic inheritance. This is true even to a greater extent than is sometimes thought. It is claimed by those who have studied the life of the lower classes that at least three out of every ten criminals might have been saved by simply changing the conditions of their lives. Their inherited nature could certainly not have thus been changed, but the environment changes the relation of

man to his conditions, and produces totally different results. How much difference in the tendencies could be produced by changing environment is difficult to say. If the children of the Jukes or Callicax families could have been reared in the families of the Edwardses, and the children of the Edwards family reared under the conditions of vice and criminality surrounding the Jukes family, what would have been the result? No one, of course, can answer such a question; but it is safe to say that there would not have been as many criminals in the Jukes family nor as many college presidents or other men of note in the Edwards family. With the same moral inheritance it is perfectly sure that environment may make quite different results in different cases.

Nevertheless, there must be a substratum in the nature of man upon which is built the moral system of the individual. Each individual is born with certain innate powers, and it is these powers which are molded by the environment. The child of the savage, even at birth, is not just the same as the child of the European, and while we must admit that the same individual brought up under different conditions would develop a different type of morality, it is no less true that the raw material out of which the moral nature is developed varies in different races of men. The innate powers of a twentieth-century man are probably, both intellectually and morally, different from the innate powers of an individual of the twentieth century before Christ. These differences furnish the basis upon which may be erected the intellectual and moral structure built by man. In the realm of morals it is this innate nature which urges the man to *follow what he thinks is right*,

while his social inheritance determines for him what is *right*. While the code of morals may differ in accordance with the man's surroundings, the impulse which urges the individual to follow the code of morals under which he has been brought up, is imperative in all races. Is this moral sense, or conscience, wholly the result of social inheritance, or is it, in part, at all events, due to organic inheritance? The impulse to obey what we think is right and to refrain from that which we think is wrong seems to be a part of our nature and not wholly due to education. If so, it is subject to the law of organic evolution, similar to that which has regulated animals.

Up to this point there has been no special difficulty in determining whether social or organic inheritance is concerned in the transmission of human traits. But we now come to the first question that presents a real puzzle. The question whether the moral sense itself is wholly a matter of inherited traits, or whether it is due to training, is by no means so easily answered as some of the other questions. Is this moral sense, this conscience, a matter of organic inheritance alone, or is it in a measure, perhaps to a considerable degree, or even wholly, a matter of training? We have noted in a previous chapter that there are some reasons for believing that conscience is in part a matter of training, and hence of social inheritance. To some thinkers, however, this is radically wrong, and conscience, they say, must be looked upon as an innate inheritance of mankind. Those who have fastened their attention most fixedly upon the laws of organic inheritance as they worked them out experimentally in animals, are inclined to insist that it is organic in-

heritance alone, and not training, that is concerned in the origin of the moral instinct. They point out the continuation, generation after generation in the same family, of the same general moral tone, of sometimes high, sometimes a lower moral sense, and they insist that it is hopeless to expect a high moral sense in the inheritance of a family that has shown a different character for some generations. They point to the several now famous families of such evil inheritance, which prove that moral sense is a matter of organic inheritance and not training; and they give instances of members of these families that had been removed from their families and reared under new surroundings, but who in spite of all give evidence of their own evil moral tendencies. Upon such facts as these they base the conclusion that only by inheritance and selection can the moral tone of the race be preserved. On the other hand, an opposite view is held by others, who point out that in these famous families the children during their young plastic years are always reared under influences that tend to develop a low moral tone, and who insist that the fact that continued generations of such families show a succession of criminals, is to be accounted for as much by training as by inheritance. They emphasize the fact that during the training of the child he is little by little taught by his parents or by others the meaning of right and wrong, is even taught the words "right" and "wrong," and that thus, to a large extent at least, his whole idea of moral obligation is a matter of teaching from his surroundings rather than innate intuition.

To decide sharply for either of these two views is at present premature. Indeed, it seems probable

that neither of the extreme views is right, and that here as elsewhere the truth is between the two. It seems certain that each person receives by inheritance impulses in the direction of both altruism and egoism, as does also the fact that not all individuals receive the same grade of instincts in these directions. In some families the egoistic and in others the altruistic instincts are the more prominent. Just as persons with exceptionally high mental power are, on the average, likely to produce children with large mental development, so it is equally true that those who have especially keen or unusually dulled moral natures seem likely to transmit similar characters to their offspring. These innate moral tendencies would appear to be family attributes, transmitted by organic inheritance, and, if they are to be preserved and increased, it must be by the control of mating and by the selection of individuals. But it is abundantly clear that these instincts may be greatly modified by training, that is, by social heredity. It is certain that there is such a thing as an *educated* conscience. From birth to death each human individual is being subjected to the teachings of his environment, and, being eminently more receptive than any other animal, the growing child is inevitably molded into an adult whose characters are dependent more upon the training than upon the traits that he has inherited.

GENERAL CONCLUSIONS

Recognizing that civilization has been developed from the human family, and primarily by the action of the ethical nature which binds men together into a unit, we conclude that civilization has been builded

upon a foundation of characters inherited by organic heredity. So far as concerns these attributes, they cannot be modified by training or education, but we must rely upon breeding and selection to develop them and to hold them at a high grade. But except for these foundation stones practically all the rest that pertains to civilization comes to man in a different way, so that social heredity outweighs organic heredity. The development of language is wholly a matter of social heredity. The development of the moral sense may be in part due to organic inheritance, but it is certainly in part dependent upon social inheritance. The evolution of the codes of morals which determine the condition of civilization of different peoples is wholly a matter of social inheritance. Organization and centralization are to be attributed partly to the social instincts which are matters of organic inheritance, but partly also to social inheritance, since they are largely determined by custom, precept, and tradition as well as by intelligent action. The type of the civilization that any race of men has built has been due wholly to social heredity, being determined by the environment and by custom. The particular character of any nation, depending as it does upon precept, custom, education, and environment, is a matter of social and not organic inheritance. The slow but continued triumph of altruism, which is the great lesson from social evolution, has been due to both organic and social heredity. By normal processes of evolution the human race has been equipped with altruistic as well as egoistic instincts handed on probably by organic inheritance. But the development of these instincts and their application to actual life in the

human race has been wholly the result of the new force of social inheritance.

Our final conclusion to the general question as to the relation of man to the two types of heredity, is thus briefly as follows: To his organic inheritance mankind owes his mental powers, his physical powers, his instincts toward a social life, and the instincts toward self-sacrifice, which make him willing to yield to authority and to demand government. It is his organic inheritance that has forced him into association with other men, that has led toward social evolution. But the structures that he has builded upon these foundation stones have not been builded by organic but by social inheritance. The social organism itself is wholly the result of social inheritance, for which organic inheritance has furnished only the foundation. *Society is a superstructure, built by social inheritance upon a foundation laid by organic inheritance.* If we want to get a picture of what man would have been from his organic inheritance alone, we have only to imagine an individual brought up alone in nature, without contact with any other human being. He would have the same inherited powers as now but would lack the social inheritance. That he would be little more than a cunning brute seems apparent enough; and thus we see that man is really separated from animals primarily by his social rather than by his organic inheritance. That any social evolution at all was possible has been due to the physical, mental, and moral nature which man has inherited by organic heredity; but the form and nature of the actual evolution that has taken place has been determined by social heredity.

"SOCIAL HEREDITY" AND THE "ENVIRONMENT"

Having thus gained a comprehensive idea of what is meant by social heredity, we may ask a final question—whether this force is anything more than the long recognized "influence of the environment." In a certain sense they are identical, since social heredity is surely the influence produced upon the individual by the various forces acting upon him during his life. But in another sense they are different, and, as we have considered it, social heredity is not the same force that has formerly been recognized as the action of the environment. As the environment has been thought of in earlier discussions of evolution it has been looked upon as a set of forces which not only modify an animal during its life but may produce changes in it which are transferred to the organic nature of the individual so as to be transmitted by organic inheritance. The evolutionary theories of Lamarck and the later Neo-Lamarckians were founded upon the idea that the environment thus produced modifications in organisms that then became part of their organic structure. These ideas have been pretty thoroughly discredited by the growing recognition of the non-inheritance of acquired characters. With the abandonment of these views the influence of the environment has been given less and less weight until it has been almost abandoned. To explain any phase of evolution by appealing to the action of the environment is now regarded as quite unsatisfactory. That the environment has some indirect influence in shaping evolution is about all that the more recent views of heredity have been willing to admit, and it has been appealed to less and

less during the years that have followed the appearance of the new conceptions of heredity which started with Weismann.

But the principle of social heredity which we have been studying does not claim to do what the older biologists attributed to the environment. This principle recognizes that there are in all animals certain characters which are incorporated into their organic nature, are represented in the germ plasm, and are handed on by the laws of germinal heredity. But it also insists that there are other characters possessed by animals which are developed during the life of the animal as the result of the actions of its environment upon it. These do not, it is true, become incorporated into its nature in such a manner as to be part of the germinal substance in condition for transmission by organic heredity. But the conception of social heredity as we have been considering it presents two phases in which it is vastly more comprehensive and far-reaching than the older phrase "the environment." First, it points out that so far as concerns mankind these artificial characters, acquired anew by each generation, constitute the larger parts of the attributes which make him the *social unit*; while the characters which he receives by organic heredity simply make him a *human animal* with a few important instincts. The larger portion of the attributes of the twentieth-century man he receives from his environment and does not inherit by organic inheritance at all. This phase of the matter places this force of social heredity far ahead of the older ideas associated with the term "environment."

A second new phase of social heredity is the recognition of the fact that the acquired characters devel-

oped in the individual by the environment, though not transmitted by organic heredity, are just as surely, and in some cases more surely, handed on to the next generation by laws of their own. At least this is true concerning the action of the force upon the human race. It is this phase of the conception that warrants the use of the term "heredity" as descriptive of the force. It is manifest that the older phrase—"the influence of the environment"—contained neither of these two conceptions. While, therefore, the force of social heredity in one sense is no more than the influence of the environment upon successive generations, in another sense it is much more, since it furnishes a basis for an evolution of its own kind quite independent of organic evolution as commonly understood. Moreover, it becomes a force which has had a vast deal to do with the evolution of human civilization, is, in short, civilization itself; but it is a force which has had only the smallest part to play in the evolution of the lower animals. It is distinctly a force of human rather than animal evolution.

One other factor contained in social inheritance not commonly included in the term "environment" is the action upon the individual of training. The environment as commonly understood includes the surroundings in which an animal lives, which may have direct action upon him. It does not commonly take cognizance of the fact that the activities of an animal from birth are producing a series of changes in his nature, physical and mental, which make very different adults in accordance with the nature of his activities. This is commonly included under the term "training," sometimes called "nur-

ture." Social inheritance includes not only the direct action of the environment but also the effect of this training, which in mankind is probably the greatest force determining his development. For all of these reasons it is clear that "social heredity" is by no means simply a new name for the older term "environment."

CHAPTER XII

THE LAWS CONTROLLING HUMAN SOCIAL HEREDITY AND EVOLUTION

FROM all that has preceded it has appeared that human social evolution has been brought about by a different set of conditions from those which have produced animal evolution. Since the guiding principle has been social rather than organic heredity, we are prepared to believe that the laws controlling human evolution may be different from those at work elsewhere. The evolution of animals in general, according to our present knowledge, appears to have been brought about by the accumulation of congenital characters alone. Whether the variations which constitute the stepping-stones of advance have been slight ones (*diversities*) or large and sudden ones (*mutations*) may not be yet fully settled; but whatever they are, they have from the first been fixed in the germ substance and handed on by organic heredity. Then by the action of natural selection some have been preserved and others eliminated, the total result being progress and evolution. In certain respects man must have been subjected to these same forces, since he too is an animal. But since social evolution stands upon a different footing, we may naturally expect that it may have been brought about by different forces which may have had little or no part in the evolution of the lower animals, where social inheritance is practically lacking. In this chapter we will briefly consider some of the

principles wherein human evolution stands apart, principles which to a large extent so modify the progress of evolution as to vitiate all comparison between human development and that of animals.

THE INHERITANCE OF ACQUIRED CHARACTERS

The fundamental distinction between acquired and congenital characters was not sharply recognized until Weismann threw such a clear light upon methods of heredity by his theories advanced thirty years ago. A distinction between those characters which had been received by inheritance and those that were acquired during life had been indeed recognized before; but it was reserved for Weismann to distinguish them sharply as having totally different relations to the problem of inheritance and development. From that time biologists have been coming to place less and less reliance upon acquired characters as affecting the evolutionary process, until to-day they are practically excluded from the discussion. In modern discussion of evolutionary methods it has come about that to show that any character has been acquired during the life of an animal has been regarded as sufficient to exclude it from playing any part in the evolutionary process. Acquired characters have thus been slightly thrown to one side.

From our study of the evolution of human society, we are forced to restore to acquired characters an immense significance. The first striking feature that we find wherein the evolution of mankind differs from that of animals is that here acquired characters are transmitted to posterity, and do count emphatically in evolution. To be sure, they are not transmitted by the same laws as are congenital characters,

for they are simply handed down by education and precept. But nevertheless they are handed down to the following generations.

Although this matter has been considered incidentally in the previous pages, it is necessary here once more to summarize the matter, as representing one of the new laws controlling human evolution. Social evolution, indeed, is hardly more than an accumulation of acquired characters; but though they are simply acquired and never become a part of the germ plasm, they are none the less surely transmitted to different generations by a method of their own, and it is by their development and their transmission that the phenomenon which we call social evolution has taken place and through their influence that what we sometimes call the social organism has been developed. Under the influence of acquired characters development can take place with very much greater rapidity than when congenital characters alone are concerned. Hence it is that in the development of the human race acquired characters are reinstated as a force of great significance, and as forming the primary factor in human advance.

From birth to death the human individual is being subjected to the teachings of his environment, and being eminently more receptive than any other animal, the growing child becomes inevitably molded into an adult whose character is dependent more upon the training than upon inheritance. The child may be born with wonderful mental possibilities, but unless he is trained by education his mental power amounts to little. By education his mind becomes yearly more efficient and no one fails to

recognize that the educated mind is vastly superior to the uneducated, even though they may have been equal at first. This is equally true of the ethical nature. This phase of the child's life too is subjected to the training of his home, of his neighbors, and of the hosts of other influences that surround him during his young years, until two persons who had at birth an equal endowment of moral as well as mental sense may become almost world-wide from each other. The primary attributes which the individual possesses, moral as well as mental, he owes, largely at least, to the fortune or misfortune of his birth, that is, of his organic inheritance; but what he does with these attributes, whether they increase or decrease, whether they become keener or more dulled and how they are applied to practical life, depend upon social inheritance.

NATURAL SELECTION NO LONGER THE SINE QUA NON OF PROGRESS

The new laws of social inheritance have brought it about that progress is no longer dependent upon the rigid action of natural selection. Among the lower animals a rigid selection based upon a struggle for existence has appeared to be a necessary factor in advance. It has been forcibly pointed out that such a selection is necessary, not only to produce advance but even to protect from degradation those already developed. Even if the recent mutation theory be accepted, which makes new types sudden in their origin, instead of gradual as Darwin supposed, it would still be necessary to have a rigid selection to preserve the valuable and discard the useless types. Among animals it appears that the withdrawal of

the force of selection leads to degradation. In view of these general laws some biologists have been somewhat pessimistic over the action upon the human race of the ethical instincts, which bid man to preserve the weak instead of exterminating them as nature does elsewhere—and have intimated that the results will inevitably be a degradation.

But as soon as man comes under the full influence of social heredity there begins to act upon him a new principle which tends to progress. In developing society a new rivalry takes the place of nature's struggle for existence, a rivalry that leads to advance, though in a different way. The social and industrial rivalry that is found among man is sometimes called a struggle for existence, and compared in its action to the struggle for existence among animals. But such social rivalries must not for a moment be confounded with a real struggle for existence, and whatever influence they have comes in a different way. Nature's struggle for existence results in the extermination of the ill fitted. But in the human race for supremacy success in any of the lines toward which such rivalry is directed does not result in extermination of the non successful nor does it result in leaving the successful with a larger number of offspring, or with a greater chance of handing their characteristics to the next generation by organic inheritance. The most successful man in human rivalry may be from nature's standpoint a total failure since he may leave no offspring. It often happens that the families of the world's leaders soon die out. The Roman Catholic clergy have been great forces in the progress of civilization, but not by means of the progeny they have left behind.

All such individuals from the standpoint of organic evolution have been total failures. If human evolution were of the same type as that of animals, they would have had no influence upon posterity. With animals the individual influences the race only through his offspring, and he has no influence unless he leave a numerous progeny.

New Forces of Progress.—Clearly, then, human evolution is not to be compared with organic evolution, for there are other intelligible forces that lead it on toward progress besides the inexorable elimination of the unfit. Progress in mankind may be brought about by deliberate intention, by intelligent guiding of events, by a conscious modifying and controlling of the environment, and by the improvement of the education imparted to the growing minds of the children, so that each generation may be in a little better position than the last. Social heredity may, in short, be intentionally and consciously modified, and the social heritage thus brought into a higher and higher plane without the necessity of a rigid extermination of the unfit as its central feature. The ethical nature, though it does preserve the unfit, is not necessarily leading to degradation, since a new force tending toward social progress has made its appearance. In social evolution, which comprises the real progress of the human race, natural selection is no longer the *sine qua non* of progress, whatever may have been the case concerning the evolution of animals.

The fact is that in the development of the human race a new goal has appeared toward which the race is progressing. Evolution no longer seems to be aimed toward producing better animals, or more

complexly built masses of muscles, bones, and nerves. The last quarter of a century has shown that to develop these there are needed those laws which are acting in nature, which have produced a rigid selection resulting in the breeding together only of individuals well fitted to continue to fight for existence. But the development of mankind has a new aim, which doubtless as yet we only dimly appreciate and of which, possibly, we have as yet no conception at all. Whatever this new aim may be, one thing is certain: the new goal inevitably involves a higher *activity* of the mental powers of mankind. It is not simply the possession of mental powers that constitutes humanity; it is, rather, the use of these powers. Now, while the possession of mental powers is clearly a function of the brain, and while this, again, has likely been produced in man by the same forces that produced his other bodily features, we are sure that the activities of his mental powers are controlled by the environment in which he lives. That which the mind of man is capable of doing is dependent not wholly upon the inherited mental power, but largely upon the condition in which it works, upon the training it can receive, and upon the tools with which it has to work. This is dependent upon social life almost wholly. From all of this it follows that the aim of human evolution, instead of being to produce a better animal, is to produce a better society, and for this purpose, for reasons already pointed out, other laws than those of natural selection are most significant.

Through the influence of social inheritance mankind thus comes to be more or less independent of the laws of natural selection. Through its influence

the social heritage which is handed from age to age may become greater and greater by accumulation, can be modified by law, by precept, by advice, and by education. The statutes which our legislatures create, the customs which our families develop, the laws which our nations devise, the education which civilization puts into the hands of its members—all these, although they do not affect organic development, do profoundly affect social development. Each age sees a greater improvement in the appreciation of the value of those facts which are instilled into the mind by education, in comparison with those that are simply innate. The savage has little appreciation of the value of training, and his children become largely what their inherited nature makes them, molded by the simple environment which surrounds them. But civilized man recognizes that this molding process contributes a greater part in making the history of man than do his innate powers. Thus man is becoming less and less a creature which his inherited powers alone would make him. He becomes more and more an artificial product, modified more and more profoundly by education with each generation. Under these conditions, a governing family, or even a single individual, though he breeds no offspring, may guide evolution, and thus be an extraordinarily potent factor in development; and the influence which such families or individuals have is brought about by conscious, intelligent action and not, as in the organic world, through the unconscious inheritance of innate traits of character.

THE INFLUENCE OF THE INDIVIDUAL

Among Animals.—One of the most striking and

sharp contrasts between human and animal evolution has been in the influence of individuals upon the race. Among animals, the individual counts for little or nothing. When a single *Daphnia* may have millions of offspring during the few weeks of summer, it matters not in the evolution of the race whether any particular individual survive or perish. Even among more slowly multiplying animals the same thing is true. The only way that an elephant can influence his race is through the organic heritage which he gives his offspring, and if he dies and leaves no offspring he has had no part in the progress of evolution. It has sometimes been questioned whether among animals the individual counts at all; for strong reasons have been advanced for supposing that the process of evolution has been by averages and means rather than by the appearance of isolated individuals in advance of the rest. Evolution has been described sometimes as an advance of the race *en masse* rather than by any particular advance along special individual lines. In more recent years a somewhat different conception has become popular. It seems that in many cases among animals and plants sudden new departures from the original type appear amid the offspring of normal parents. Such new departures have been called *mutations*, and evidence has been accumulating rapidly in recent years that these mutations may become permanent, thus constituting a noticeable advance in the race at a single step. So far as this may occur, of course, an individual may count emphatically in the process of evolution. But if such an individual does count, it is a result for which he is wholly irresponsible, since it depends entirely

upon whether his germinal heritage has furnished him with such a persistent mutation that he can hand it on to his offspring. Moreover, if such mutations do occur and form a controlling factor in evolution, it still remains true that the individuals possessing them influence the race only through their progeny. If any animal should develop some mutation of extreme value to his race, but should by accident be prevented from leaving any offspring, his influence upon the race would absolutely vanish and the race be left exactly as if he had not been born. Among animals, then, the general rule is that the individual counts for nothing, and that the only way any individual may count in the evolution of the race is by the offspring which he leaves behind.

Among Men.—In contrast to this picture stand the possibilities of the human race under the influence of social inheritance; for social heredity makes it possible for the individual to leave an impression upon the race totally independent of his offspring. With mankind, the influence which an individual may have in the process of evolution is not simply through the offspring he may leave, and it cannot be said that the man who leaves no offspring leaves no influence upon the race. It is perfectly evident that a Cæsar, a Luther, a Napoleon, a Bismarck, a Lincoln, and hosts of others that might be enumerated have exerted a most profound influence on the evolution of mankind. It is equally evident that they did not do this through their offspring. Some of them left no children at all, and those who did leave children owed their influence upon the progress of mankind not to their children, who were few, but to the hosts of mankind upon whom they had had an influence. What

man had an influence in shaping the destiny of the Western continent equal to that of Washington? And yet he had no children. Among animals it is the individual that produces and rears the greatest number of offspring to maturity that is the greatest success, while the one which produces none is a total failure. According to the standard of natural selection, Washington was a total failure, while the Jukes family, with its numerous offspring, was a great success. But the fact stands apparent that the Jukes family has had no influence upon human evolution, while Washington turned it in a new direction. Among mankind the individual may count by what he does during his life and not simply by the offspring he leaves.

Thus we find that social heredity has been responsible for the greatest organizing force in history. As we look over the history of mankind as far back as we can trace it we find that the force of the individual has ever been the most potent influence in developing organization. It has been the force of personality that has been the center around which organizations have usually developed. While principles have been ever manifest as an underlying cause for the different steps in social evolution, it has commonly been individuals that have produced the stimulus toward union. The single reformer may change the beliefs and hence the actions of the world; the inventor changes the whole aspect of civilization and the discoverer modifies every phase of the world touched by man. Alexander made the great Grecian empire; Cæsar created imperial Rome; Mohammed founded the great Mohammedan nation; Luther changed the thoughts and actions of the world;

Cavour created free Italy and Bismarck imperial Germany. Throughout human history single individuals may be seen to be guiding the evolution of society. This is an absolutely new phase in the history of the world; for such a condition never has and never could have occurred among any animals lower than man. It is clearly the new force of social heredity that has brought into existence this new mighty influence, which has been felt in all ages since man began to unite into societies, and which is felt to-day with even greater force than ever, since with higher civilization the single individual becomes capable of doing greater works because he can control the actions of larger associations of men. Social heredity, by furnishing the exceptional individual with almost unlimited powers, has thus called into existence perhaps the most mighty force that has contributed to the evolution of the social organism.

CIVILIZATION AND INTELLIGENCE HAVE DEVELOPED TOGETHER

We may notice next that the new force of social heredity explains the recognized fact that intelligence has developed as civilization has advanced. That the intellectual possibilities of twentieth century man are far above those of primitive man will not be questioned. As long as science held the view of heredity accepted before Weismann it was natural to suppose that intelligence should advance with civilization. As long as it was supposed that the characters acquired by one generation could be transmitted to the next it would follow that the results of the accumulating experiences of the race would be handed on from age to age, so that the

mental powers would increase with successive generations. But with the conception of heredity that denies the transmission of acquired characters it is no longer possible to think of one generation as profiting by the characters acquired by the last, and hence it has been difficult to explain how a developing civilization could develop mental powers. Now, while science may not yet perhaps have definitely reached the extreme position that acquired characters can have no influence upon subsequent generations, still the discussion of the last two decades has shown conclusively that such characters cannot be counted upon as playing any important part in evolution. This being the case, the questions arise:

1. If civilization is only a series of acquired characters, and if acquired characters are not inherited, how can we account for the fact that intelligence has increased with developing civilization?
2. How can we explain the evolution of intelligence itself if we assume that acquired characters are not inherited?
3. If civilization is nothing but a series of *acquired* characters, and if intelligence is a part of the *organic* heritage of man, how could the former have any influence upon the latter?

Human Progress.—We are frequently told that the mind of man has not advanced at all since the time of the Greeks. Perhaps this is true; and it may be perhaps said with equal cogency that the mind of man has not advanced since the time of the Egyptians, when they built their vast monuments so long ago. We may even raise the question whether the mind of man has any greater powers than it had in the time of the old stone men of prehistoric ages; for it is a question whether it did not take just as

much mental power to make the first crude implement out of stone, with nothing as a pattern and with not even the idea of the possibility of making anything like an artificial implement, as it does in these later ages to fashion the most delicate instrument when the inventor has all the patterns of previous ages to aid him. When we come to try to compare mental power of our twentieth-century inventors and those of earlier ages we have no adequate measure. Did Beethoven have a greater musical genius than the savage who makes music on his crude flute? Doubtless Beethoven produced greater music. But he had a better instrument to work with, and withal he had the music of centuries behind him to stimulate and guide him. Is a Maxim with his rapid-fire gun a greater inventor than the savage who invented the bow and arrow? Who can answer such a question? Certainly the rapid-fire gun is a more intricate instrument; but the savage created his bow and arrow out of nothing, while Maxim utilized the discoveries of thousands of men behind him. There is surely some reason for insisting that, so far as innate abilities are concerned, the twentieth-century man is not superior to the earliest race of men of whom we have any knowledge. While it hardly seems that such a conception is or can be true, there is certainly enough of suggestion in it to make us think soberly, and to ask ourselves what is this boasted progress which the human race has made during the centuries?

For progress there has been beyond any question. Whether twentieth-century man is superior to prehistoric man we may at least doubt, but that the human race of the twentieth century is vastly above

the prehistoric stone man none will venture to question. Progress there has been of immense import. But this progress has been primarily not in the innate powers of man but in his acquired powers. It is civilization that has advanced rather than the man who has made the civilization. A man might, if he lived long enough, heap up treasure for a century, and at the end of the century he would doubtless be the possessor of a vastly greater pile of treasure than at the end of the first year. With the treasure he could do far greater things than he could have done at the end of his first year of accumulation. But he would not necessarily be a stronger or a greater man simply because his pile of treasure had grown for a hundred years. So the human race has been heaping up treasures of vast utility and has continued to do this for thousands of years. The treasure pile has grown to prodigious size, and with it mankind is capable of far greater achievements than he could accomplish when he began this treasure-heaping. But he is not necessarily a better animal than when he started. The treasure pile which he has heaped up for his use we call civilization. It has never been a part of his organic nature any more than the miser's gold is a part of himself. It has accumulated by laws of its own.

HOW CIVILIZATION DEVELOPS INTELLIGENCE

Social heredity furnishes the something that is lacking in the understanding of human mental development. The evolution of mankind has offered many difficulties to the natural selection theory, and even its most strenuous adherents have admitted that there are phases in human evolution that do not

seem to be comprised under that general law. The development of a mathematical, a musical, or an inventive genius, or any other peculiar character among civilized races, can be demonstrated not to be due to natural selection. Social heredity would account for them as follows. That each man has a certain amount of mental plasticity is proved by the fact that the mental nature of each individual is capable of being molded by conditions. Now, in this respect, as well as in others, there are many grades in the inherited capabilities of individuals. Some are born with minds especially plastic and hence capable of a high education; others with a less power of being molded. This has come about over and over again in the history of the world through the ordinary processes of reproduction, just as variations in the colors of feathers and the length of wings have occurred in birds. But these especially plastic individuals grow into different kinds of adults under different circumstances. In a savage community, because of the limited extent of his contact with mankind, such an individual must become a warrior, a chieftain, or a medicine man; while the same individual if brought up amid the wider environment of a civilized nation might become a Napoleon, a Michelangelo, a Newton, a Beethoven, a Gladstone, or an Edison. The innate genius of our great man is not the result of natural selection; it is simply one of the normal variations in the educability of mind. But the product that results from the action of the environment upon such exceptionally plastic minds is widely different with different environments. The musical genius of a Beethoven and the inventor of the savage's tomtom may possibly be on a par; but the

one has a better education and better instruments to work with than the other. Thus social heredity explains the origin of the modern individual with his peculiar characteristics and his extraordinary mental grasp, so much superior to that of earlier days, even though the substratum of innate characters out of which the individual has been produced may perhaps be no greater than was possessed by mankind three thousand years ago. To explain the condition of modern civilization, then, there need have been no great increase of brain power over that possessed by man long ago, but simply the action of that series of acquired characters which furnishes man with new tools. The real advance has been in the treasures heaped up by social heredity and not in the organic nature of man.

We thus easily understand the interaction of civilization and intelligence. As the result of normal variations individuals, and even races of men, have appeared with more or less variable mental powers, and these being due to internal factors are transmitted by organic heredity. But although this may be the explanation of the mental possibilities of the twentieth-century newborn infant, it is not the explanation of the great mental power of the twentieth-century adult. The infant is from birth subjected to the molding influences of the twentieth-century environment, and this acting continually upon his plastic mental nature produces finally an adult with mental capabilities commensurate with the influences that have been concerned in forming him. Hence the higher the civilization the greater will be the force of the influences at work to form the mind of the growing child, and therefore the ability of the

mind to act when mature will be commensurate with its education, which thus practically coincides with our term "social heredity." That the innate powers of mankind have been increased by civilization it is by no means necessary to believe. Nor is it necessary to believe that the mental powers of the civilized man at birth are materially higher than those of the savage. That the innate powers of man become immensely developed in each individual by the influence of civilization is a principle quite sufficient to explain the evident increase in the mental powers of mankind with the development of civilization. It is not necessary to suppose even that the innate powers of the human mind have particularly increased during the long period of evolution, but simply that man has greatly developed the ability to increase and use this mental power by the accumulating influences of those factors which are given to him by social inheritance. Thus, again, we see that his evolution has been external to his nature rather than internal, social rather than organic. Social advance rather than organic advance has become the goal of evolution. The progress of humanity consists in the growth of an artificial structure which has been built rather than in any advance in the animal characteristics of man. Hence it may follow that even while the human animal might be remaining stationary, without advancing at all, the human race might continue to progress with rapid strides toward its new goal.

HOW INTELLIGENCE DEVELOPS CIVILIZATION

The question of how intelligence could have in itself produced an advance in human evolution is

answered with equal ease. Even though civilization is a series of acquired characters, these have accumulated age after age because of the new force of social heredity resulting from the social life of man. Each generation teaches the next consciously and unconsciously; each generation benefits by the discoveries of the last. Age after age men living in social communities accumulate the discoveries, inventions, customs, and modes of thinking, as well as the generalizations of previous ages. These artificial products can accumulate just as surely as can organic characters; and they accumulate much more rapidly, since each generation can materially add to that which it received from the last and can then hand on the accumulated inheritance. The progress is far more rapid than the slow one of the accumulation of organic characters. By example or discovery a single generation may add immensely to the total sum of social inheritance; as, for example, when printing or the telephone was given to contribute its influence upon civilization. In organic evolution a single generation contributes little, and not at all unless valuable variations happen to appear in the germ plasm. Advance is therefore slow. But since any individual in the human race may add greatly to the content of social heredity, the advance of social evolution may be very rapid. Thus the laws of social heredity explain both how the mental achievements of human beings develop with civilization, and also how civilization has developed with the growth of mental powers, in spite of, or, rather, because of, the fact that civilization is only a series of acquired characters not transmitted to posterity by the ordinary laws of inheritance.

INDIVIDUAL RESPONSIBILITY

Another result of the recognition of the significance of social heredity is to restore to us the feeling of individual responsibility, which Weismann's theory of heredity and the discussion of eugenics have tended to destroy. If each individual is the result of his inherited tendencies alone, and if his heritage is fixed by the unalterable laws of inheritance, there seems to be little encouragement toward individual striving. Our inherited characters are fixed by the mating of our parents, and the characters that we may transmit to our own offspring are similarly fixed when we choose our own mates. By the principles of organic heredity, nothing that we may subsequently do can modify these fixed characters. Our eugenists tell us that an evil trait may persist in a family for generations in spite of any kind of training, and even in spite of mating with one in whom the weakness is lacking. The laws of organic heredity make it hopeless to strive by any kind of life either to eradicate a weakness or to introduce strength into the nature of our children. Personal responsibility thus tends to vanish entirely as we become filled with this conception. We do not seem to be responsible for our own acts inasmuch as they are determined by our inherited traits, nor are we responsible for our children's inheritance, since it is beyond our reach. The life one lives seems to weigh as nothing and to be without any influence. With these conceptions it would seem to be a matter of wisdom that attention should be concentrated simply upon the matter of choosing one's mate, as eugenics are at the present time insisting. All of

this inevitably follows from fixing our attention too strongly upon the recognized laws of organic inheritance. Among animals, individuals certainly are not responsible either for their own inheritance or that of their offspring.

But when we realize that human social evolution has not been an organic one, and that it has been due not to congenital but to acquired characters, not to organic but to social heredity, the sense of responsibility for our lives comes back to us with greater force than ever. It is exactly these acquired characters that are forming the future. It is the *lives that men live* that create social inheritance. It is not a matter of indifference to our children or to posterity in general what kind of a life we individually live. We are responsible for the social heritage that we give our children, even if we are not responsible for their organic heritage. We may greatly modify the social inheritance of our offspring, even after they are born, though we may not modify their organic inheritance; and in determining what they will become and what they will do in the world, the social inheritance commonly counts much more than the organic inheritance. It has made a great difference to the heritage of the world that a Luther, a Washington, or a Lincoln lived the life he did, for with men the life counts, quite independently of organic inheritance. The heritage of the race is determined more by what men do than by what they inherit from their parents by organic inheritance. For all of these reasons, personal responsibility, that seems to be vanishing when we fix our attention closely upon the laws of heredity and the discussions of eugenics, comes back to us more

forcibly than ever, since we realize that human social evolution has been built up chiefly from what men have done, and, secondarily, from what they have received from their parents by the laws of organic heredity. Of course those who advocate the modern views of eugenics will admit all this, for no one questions the influence of environment. But the danger is that, in the discussion of the laws of inheritance and the interest that is aroused by the principles of modern eugenics, the effect of social inheritance will be overshadowed, until this side of the question will be quite lost from sight. But we should not lose sight of the fact that the life of the man counts as well as his heritage. In trying to build up an environment for our children or for posterity, we may thus have the decided satisfaction of feeling that it will not be in vain, for the social inheritance is even more sure than the organic. The result of the agitation in the problem of eugenics is surely of inestimable value, though under the complex conditions of society the prospect of improving the race along these lines is not very great. But as an offset to this rather unpleasant conclusion, we may rejoice in the fact that whatever is acquired by one generation in human society, it is sure to be acquired again by the next; and thus, by using our intelligence, we may build up a social heritage that is greater and more far-reaching than is our organic heritage. The actions of one generation of men are not lost upon the race, as are the actions of a race of buffaloes; but they remain to have their influence upon posterity. The buffalo influenced posterity only through his offspring; man influences posterity through his acts.

SOCIAL HEREDITY AND LANGUAGE

Social heredity gives us further light upon the question raised in an earlier chapter—why no animals have developed a language. We have seen that animals have the beginnings of language, but that in man alone these beginnings developed into speech. Apart from the difference in intelligence of man and other animals, we find in the factors discussed in this chapter another reason why language has developed only in man.

Language is a phenomenon that can be transferred from generation to generation only by social heredity. It is a purely artificial product, an acquired character, and is never handed on by organic heredity. The child, at birth, inherits from his parents the power of learning language, but no trace of language itself. This he acquires by being taught, that is, by social heredity. Now, social heredity, as we have seen, has very little influence upon animals. Animals are controlled by organic heredity almost alone, and since language is not transmitted by organic heredity, it could never be handed from generation to generation. It could never accumulate, as it does by social heredity.

The last statement is really the solution of the problem. Language is an extremely complex phenomenon, so complex that it could never be developed anew by a single individual during his short life. If two children were removed in infancy from the rest of mankind, and from that time on lived together, they would very likely develop some means of communicating with each other; but they would not in their short lives develop such a complicated

tool as a language. The result of the experiments and trials of thousands of generations during thousands of years has been that each generation takes possession of what was built by all previous generations and adds something in turn for subsequent generations to improve upon. In this way our complicated language has been built up. Now, this possibility of receiving the product of previous generations and adding to them is dependent upon the fact that man lives in lasting communities in close associations. Among animals the young associate with their parents at most for only a few weeks and then commonly leave them to care for themselves. In most cases they separate from their parents completely and never know them again. This in itself absolutely precludes the possibility of their developing a language, which can come only from a close association of individuals for hundreds of generations. Language has thus been dependent upon the formation of lasting organizations.

Such organizations are not formed among animals. Among higher animals, with which, of course, we are alone concerned, the family association is fleeting even when it occurs, and individuals rarely remain together more than a few weeks, not long enough to learn or develop language. We could, therefore, look for traces of language only among such animals as form societies. In this connection it is, therefore, very significant to find that social animals do have a language, a crude one to be sure, but still a language. The social insects certainly communicate with each other in some way. Among the herds of ungulates we find examples of warnings from sentinels which indicate danger. Among the social

monkeys Garner claims to have found the highest trace of language yet reported among animals.

In short, the nondevelopment of language among animals is due fully as much to the low condition of their social customs as to their inferior intelligence. Such a complicated phenomenon as speech could develop in a community of associated men only after many generations of experimenting, and it could be transmitted to each generation only by social heredity. The universal habit of forming lasting associations among men, and the lack of social customs of similar duration among animals, furnishes a sufficient explanation for the development of language in one case and its absence in the other. Language, like civilization, is based primarily upon social habits rather than upon intelligence.

SOCIAL HEREDITY LEADS TO ALTRUISM

We have noticed that there are two fundamental instincts innate in human nature. The egoistic instinct impels each individual to seek his own interests, and is found throughout the human race. The altruistic instinct is in some respects in conflict with the egoistic, and impels each individual to cherish the interests of others. The first of these two is the primitive instinct, and is shared by all other animals. The latter is a secondary one, is in general weaker than the former, and is almost distinctly confined to the human race, although slight traces of it may be found among other animals. The fundamental law of nature, based upon the struggle for existence with the resulting natural selection, is founded upon the instinct of egoism. It is very significant now to find that the force of social heredity emphatically leads

toward altruism, and hence toward the development of the ethical nature. So emphatically is this true that it is not an overstatement to say that altruism is one of the results of the action of this new law of social inheritance.

That this is true may be first illustrated by a comparison of the instincts of the child and the adult. The child in his early years is guided by the pure primary instincts which are wholly egoistic. These lead him to seek for his own pleasure, to yield to his passions, to think only of self-interests; and in the first few years of life nothing like an interest in others is seen. But each year he becomes more and more controlled by a second type of influences, by the altruistic instinct, which gradually curbs the egoistic instincts of childhood and leads him into a life conformable to the rules and customs of the social organism. For the first year or two the child acts out his natural animal instincts. After a little he develops the moral sense and becomes more and more controlled by artificial laws, by the acquired characteristics of the social organism. Not until he becomes an adult does he fully enter into his complete social inheritance. Of course he is never freed from his original instinct of egoism, but simply has engrafted upon it a new instinct which causes him to take an interest in others. Organic heredity, in short, transmits animal instincts, and leads to the placing of self-interests ahead of others. Social heredity, as its action becomes gradually developed in the individual, emphasizes the rights and interests of others. Organic evolution is clearly egoistic; social heredity is as plainly altruistic in its tendency.

Social evolution, being thus based upon the new

instinct of altruism, is not always in harmony with some of the strongest animal instincts. The impulses for self-seeking were inherent in man before the altruistic, and hence there is sure to be confusion and conflict when the social organism demands anything in contradiction to the animal organism. Indeed, much of the confusion and turmoil that has arisen in the history of mankind in connection with civilized races has been due to the fact that this artificial structure which man has been building has been out of harmony with some of the primary, innate impulses of the individual nature. The innate impulses of man lead him in one direction, toward self-seeking, while civilization is trying to lead him in the contrary direction, of placing the interests of others on a par with or ahead of his own interests. The primary instincts of mankind tell him to gratify his desires, to yield to his passions whenever they demand or occasion offers. Such is the nature of animals; such are the fundamental instincts of mankind, as can be clearly seen when we examine the conditions of life either of low races of savages or of the low classes of civilized people living in the slums of our great cities. The customs and laws of society, however, developed by the influence of the ethical instinct and intelligence combined, tell man that he must not yield to his passions, but he must hold them in check; that he must not always seek for his self-interests, but think of the interests of others. It is this conflict between the demands of the social organism and the demands of the animal organism that lies at the basis of a large part of the criminality found in civilized races. Society tells man that what it calls *duty* should stand ahead of personal pleasure. While

the primary impulses of mankind tell him that self-interest should stand ahead, the social organism is insisting with greater and greater force each generation that the interests of others should be placed upon a par with, or perhaps in advance of, self-interests. It is the demand of society that thus creates duties. It is society that decides what is the best type of living to fit its demands, and as a consequence the possibility of failing to live according to such demands becomes a breach of law. There could be no crime if there were no law. Social inheritance has produced crime, because it has distinctly formulated certain rules and regulations in accordance with which men should live in their relation with each other. Social heredity inevitably leads toward altruistic relations in contradistinction to the egoistic.

Ideals Advance Faster Than Realization.—For reasons already pointed out, it is evident that social heredity increases in extent with each generation, and that every century sees the heritage which is handed to subsequent generations on a higher and a broader plane than the previous century. The demands of society in the twentieth century are far ahead of the demands of society two thousand years ago; they are even greatly ahead of the demands of society a century ago. Every new demand made by society upon the human race is a new attempt to subvert and contradict the primary instinct of self-seeking. The fundamental egoistic impulses in the human race have always been and still are immensely powerful in controlling human action; and as a result the activities of mankind fall far behind the rules set for it by the advanced altruistic principles of any particular age. The average of the human race

never measures up to the standard which the altruistic principles of egoism have set. These standards advance rapidly with each century, and the attempts of the human race to bring the race up to the standards are never wholly successful. The failure of the human race in general to hold in subjection its primary egoistic impulses and live in accordance with the standards of society constitute what, in general, we call crime, or sin, or immorality, or any other names indicative of failure to live in accordance with society's standards. From all this it will follow that if these standards continue to advance, the human race will never measure up to them, and will never seem to be living very closely in accordance with its ethical standards. To a superficial observer, there will always appear to be a failure of the human race to advance in morality because it will be about so far behind the standards that are set by any particular generation. But if we remember that our standards are growing and becoming more elevated with each century, and that the human race simply lags behind those standards, we shall see that our conclusions as to the advance of the human race must not be based upon the relation between the standards set by ethics at any generation and the activities of that generation; but we must make an actual comparison of conditions of things independent of such standards. When this is done we find beyond question that the twentieth-century man lives far more in accordance with the standard of altruism and far less completely under the control of purely egoistic impulses than in any previous century. The human race, then, even in morals, has clearly advanced, and stands upon a higher plane to-day than ever before,

even though it continues to come far short of meeting its own standards, which are with each generation placed in advance over the standards of any previous age.

While in a narrower sense this new law of ethics places the human race above the law of natural selection, in its broader sense man cannot free himself from the application of that all-pervading law. Families and races are constantly disappearing before the inexorable law of failure to reproduce; and the problem as to what families will continue to exist and what ones will be exterminated by failure to meet the conditions of nature depends upon many complicated conditions. One of the important ones is clearly the power of the family or of the race to act in accordance with the new principles of ethics. Evolution of man has been and will constantly continue to be characterized by the survival of such families and such races as have impulses in their nature best adapted to form strong social organisms. Those races whose impulses lead them to live in constant opposition with each other have fallen, while those whose innate impulses have led them to love society, as well as to preserve peace and harmony in the tribe or in the kingdom, are the races that have succeeded. The race that has the most delicate moral sense, the most sensitive conscience, is the race whose impulses lead it toward the strongest concentration, the strongest unity. It is such races as this that natural selection has produced and will in the long run preserve. From such races there have been slowly eliminated the families in which the impulses are out of harmony with this type of social organism, and hence in this far-reaching way nat-

ural selection is tending in the human race toward the enhancement of the ethical nature of man.

FINAL CONTRAST OF ORGANIC AND SOCIAL HEREDITY

Organic evolution has produced for man his body and brain with mental powers in which the amount of fixed inheritance is slight while the plasticity is great. Natural selection acting upon man has preserved those races in which the social instinct is best developed, together with such other instincts as lead toward a willingness to sacrifice self-interests in some degree. These latter factors have been slowly developing during his history. In distinction from the evolution of animals, among which the tendency has been for fixed adjustments of the nervous system to be formed and inherited (instincts), mankind has apparently developed less and less fixity in nervous structure and become more plastic. With mankind natural selection has largely resulted in the elimination of fixed instincts, leaving a race whose nervous system is very complex and whose possibilities of combination are extremely great, but a nervous system that is not preformed at birth and is therefore capable of an almost unlimited amount of subsequent molding by the action of the environment upon it. Up to this point we are dealing with factors which are organic in nature and transmitted by germinal heredity.

Inasmuch as this brain is not preformed, and its machinery is not already adjusted into its intricate relations by prenatal influences, it is possible that the structure which arises upon this plastic substratum may be immensely varied. Upon this plastic nature the force of social heredity has engrafted the struc-

ture of civilization. Customs of the races have slowly developed, and these, through education, mold this machine, from the time of birth to the time of adult life. This produces a change in the mind of man far more rapidly than is possible by organic evolution. The chief factors which separate the European from the Bushman are not, then, in his innate, but in his acquired characteristics. We do not mean by this that there are no innate differences between the Bushman and the European. The differences in inherited mental power of the two are perhaps great; but the chief differences between them, in adult life, are in the mental powers which each has acquired rather than in the mental attributes which each has inherited. Civilization is thus a heritage, handed down from father to child; but it is like property passed on from generation to generation, and not like that organic inheritance by which the parent transmits to his child the color of his hair, or his eyes, or his stature, or his mental power and moral sense.

Hence, social evolution is something quite different from organic evolution. On the one hand, we have a phenomenon resulting from the slowly modifying structure of the life substance; on the other hand, we have a development of purely artificial factors, capable of accumulation and of being handed on from generation to generation without any molding of the characters which are transmitted by inheritance. The great lesson to be drawn is that social heredity is under the action of laws totally different from those of organic heredity. We may deny that acquired characteristics play any part in the process of organic evolution, but it is clear enough that

acquired characteristics not only play a part but that they constitute almost the whole social evolution. With this understanding of the development of civilization, it is clear that the problem of explaining the evolution of society is not like the problem of the evolution of animals. All attempts made to compare the development of society with the development of the organism are fundamentally vitiated by these radical differences in the nature of the phenomena to be explained. In one case we have the explanation of the gradual modification of the organism through the laws of selection and descent. In the other case we have merely the accumulation of a series of artificial products which heap themselves up age after age, through the process of accretion. The development of society under the force of social heredity is a phenomenon entirely distinct from that of the development of animals under the laws of organic evolution, and they must never be confused with each other. The laws which regulate the one are clearly not the laws that regulate the other. Organic heredity has produced the human animal, but social heredity has produced the modern social man.

The two different classes of influences which determine what any living being shall be have sometimes been referred to under the terms "nature" and "nurture," the former referring to that derived by organic inheritance and the latter by social inheritance. It has been a general result of the last thirty years to emphasize nature and minimize nurture. Perhaps this was natural, since the previous generations had placed more emphasis upon nurture and failed to appreciate nature. Our study of the

principles of social evolution has reinstated the force of the environment in the development of social though not in the development of organic evolution. In a sober consideration of the principles of modern eugenics it behooves us, therefore, not to reject or overstate the effect of either of these two forces, but, rather, to carefully determine their relative influence. With the eugenists we may recognize that all features of our bodily structure are controlled by the laws of inheritance. With them too we must admit that one's innate mental powers are largely or wholly matters of organic inheritance; and probably, though this is less certain, the same is true of the moral sense with which each is endowed. So far, then, as concerns the problem of improving our physical nature, or the innate mental ability and the keenness of the moral instinct, this must be done, if done at all, through the control of marriage. This is what our eugenists are trying to emphasize and to bring about. But we must not forget, in the enthusiasm with which we welcome improvement in this direction, that there is another even larger side of the question. Organic heredity simply gives us certain powers, while social heredity determines what we shall do with those powers. Man is molded into a social individual by social forces, and whether or not he fits into our society depends more upon the social forces at work than upon the powers that nature gave him. Even though he have an inheritance weak both mentally and morally, an individual may be molded into a fairly good member of the social organism if he is surrounded by proper environment; but if he is reared in the wrong environment, tending to produce a wrong social inheritance, he will be an

undesirable member of society, no matter what may have been his innate powers.

When we realize, as we are now in position to do, the tremendous influence of this factor of social heredity in the development of humanity, we are led to the feeling that, after all, the primary distinction between man and animals has been that man alone has developed the power of utilizing this new force. Among animals social inheritance is a factor of slight moment, but with man of the greatest. The real stimulus which has acted upon man to produce his wonderful development in contrast to animals has been the utilization of the new force of social inheritance. It is this which has produced civilization, and it is civilization that really separates man from the lower orders of nature. The utilization by man of this new force has been brought about as the result of his growing organization and centralization, and this is due to the instincts which, in general, belong to the ethical nature. It is thus the instinct which leads to the willingness of the individual to sacrifice his own interests that constitutes the real stimulus under whose influence human evolution has taken place.

Human evolution has thus been a double one. The laws which had been at work for countless ages producing a world full of its numerous animals and plants produced also the first human animals with some points of strength and some of weakness. But among other features of this new production there were certain instincts that led to social life and to a spirit of self-sacrifice. These new characters in time brought to the front the force of social heredity and a new era of evolution began, ending in the

comparatively rapid evolution of civilization. This latter phase of the great sweep of the evolutionary processes of nature belongs to man alone, and has made him the unquestioned master of nature, the mastery having been given him by his own unique evolution, made possible by the utilization of the new phase of inheritance which has been called Social Heredity.

GENERAL CONCLUSIONS

It may be instructive to ask a final question: Are there any great lessons which may be learned from social evolution of the past, that can guide us in our endeavor to direct that evolution in the future? While man cannot stem the tide of advance, he may, in a measure, guide it, and may, at all events, adapt his life and his laws to it. It is well to bear in mind a few general facts.

1. We may with absolute certainty expect in the future that social evolution will progress in the direction of greater concentration and greater organization. This is the law of the greatest achievement with the least expenditure, and is absolutely irresistible. All attempts to stop increasing centralization, like those of anarchism or democracy, and all laws devised to prevent organization will be futile. They may be useful in preventing too precipitous an advance, but they cannot stem the rising tide.

2. With the growing centralization there will be a parallel development of the worth of the individual. This will be brought about, however, not by giving man back his original freedom. Such a course would deprive him absolutely of the advantages accruing from civilization. The worth of the individual will

be increased by an increasing care taken of him by central authority. The evident drift of social evolution is to give to each individual a larger share in the good things of the world, either by legislation or as the result of modified social conditions. But although this will be the general trend of evolution, it will not be uninterrupted.

3. Social evolution has not come from the constant advance of any one principle, but as the result of a seesaw. Practically every advance in the condition of man has come from struggle. Constant development in any one line has always meant stagnation. It is only as opposing ideas and opposing beliefs and interests are brought into contact with each other that social evolution has advanced. Rivalry and conflicting interests are necessary for an advance. If we hope for the future advance of the race, we must not aim for the cessation of struggle, for this would mean an end of progress. It has been the conflict of centralization and individualism, the opposition of altruism and egoism, that has caused the advance of man to higher and higher grades of civilization. Contests alone can settle world problems and place man on a higher plane. Without them no great questions could be definitely answered, and the race would live a life of stagnation. In these contests many will suffer, but the results will be greater organization, greater value of the individual, greater accomplishment by the race, in short, progress.

4. We may be sure that the family or that race that fails to rear abundant offspring will be distanced by those whose reared children are numerous. Race suicide and family suicide have been and still

are playing an important part in determining the future of the race. It is not, however, wholly a question of producing, but one of rearing children that is concerned, and to a considerable extent the smaller numbers of families of the upper classes are compensated for by the larger percentage that is reared. At the same time, we must remember that those races and those families that fail to reproduce themselves and leave abundant progeny behind, cannot in any proper sense be called the higher classes.

5. The new force of social heredity has produced a great change in the condition of evolution, bringing it about that the family and the race that determines the direction of evolution is not necessarily the one that produces the largest number of vigorous offspring. Through social heredity, a single individual, though leaving no offspring, may turn the direction of evolution, and have more influence upon mankind than another with numerous progeny. Hence, while emphasis should be placed upon reproductive efficiency, even greater emphasis needs to be placed upon making the individual's life count, since the influence of the individual upon evolution through his life may be far greater than his influence through his offspring.

6. Recognizing that the particular phase which civilization has taken has been due to the factors which we have called social heredity, we must reach the significant conclusion that the guidance and direction of human evolution will in the future be largely in our own hands, as it has been in the past. For the development of the fundamental instincts upon which society is based we may be dependent upon the laws of organic inheritance. For this we can assume no

responsibility, though perhaps we may improve the race inheritance if we can properly control marriages. But for the vast and complicated structure of civilization which has been built upon this foundation mankind is responsible, and each person who lives his life among men is responsible for a certain share in shaping the evolution of the future.

7. The hope for the future must lie largely in the development of the ethical nature. For the advance of civilized society there is a need for organization and the ethical nature alone teaches the necessity of sacrifice which is the key of organization. Religion, therefore, cannot be left out of the development of society, for that alone gives vitality to ethics, offers a reason for the sacrifices of present interests, and thus furnishes the cement necessary for lasting union. Education without religion makes cold, calculating men, with self-centered interests, and any system of social advance which leaves out the religious side of nature leaves out the one force that makes possible lasting organization upon which civilization depends. Society not only has been, but must remain, ethical in its tendency and aims. New laws, new customs, new conditions, may all be desirable and all have their influence. But unless they involve as a central factor the elevation of the ethical nature of man, they will be futile in the end from lack of vitality. That great series of influences which in our Western nations are called religions, since they furnish the only real grounds for sacrifice and right living, are, after all, the hope for the future, rather than education or any system of laws and customs that may be devised.

Although in the organic evolution of animals

nature rather than *nurture* has been the predominant force, in human social evolution *nurture* rather than *nature* has stood foremost. It is not what we are born, but what we become after birth that makes us men: it is not the powers of babes, but what civilization makes of those powers that constitutes the essence of mankind. The future is full of hope.

INDEX

- Accumulations, 23
- Acquired characters, 10, 24, 29, 42, 288
 - inheritance of, 10, 306
 - in human evolution, 306
- Advance, social rather than organic, 321
- Agglutinative languages, 65
- Agriculture, effect of, 228
- Alcoholism, 241
- Alter ego, 112, 116
- Altruism, 78, 120, 253, 256, 261, 329
 - alone produces advance, 257
 - makes strong nations, 253
 - vs. egoism, 254, 330
- Amphictyon, 170
- Anarchism, 186, 192
 - has no religion, 277
- Animal instincts, 247
- Animal language, 44
- Animal societies, 145
- Ants and bees, 145, 284
- Aryan race, 139, 165, 167, 196, 234, 291
 - centralization within, 170
 - chieftain not a religious head, 169
 - growth of nations, 171
 - migrations of, 167
- Australia, 238
- Barbarians, classification of, 151
- Bees, 283
- Beethoven, 318, 320
- Bird societies, 145
- Birth rate, 217
- Bushman, 100, 149, 336
- Callicax family, 295
- Centralization, a source of weakness, 175
 - and individual value, 195
 - force of, 174, 193
 - origin of, 153
 - tendency toward, 178
- Chieftain, 208
- Child language, 47, 51, 61
- Children, influence of, 134, 136
- China, 161, 236
- City, influence of, 290
- Civilization an artificial product, 281, 286
 - and intelligence, 319, 321
 - based on acquired characters, 288
 - dependent on altruism, 261
 - develops intelligence, 322
 - ethical in its aim, 260
 - founded on instinct, 217
- Clans, 84, 149
- Codes of morals, evolution of, 82
- Colorado cañon, 7
- Communal system, 162
 - based on ability, 162
 - lack of centralizing force in, 164
 - makes men, 166
 - weakness of, 164
- Comparative philology, 55
- Concepts, 4, 54
- Congenital characters, 29
- Conscience, 4, 5, 94, 98, 106, 108, 117
 - authority of, 122
 - origin of, 110
- Contrast of animal and social man, 17, 20
 - of organic and social heredity, 335
- Crusades, 209, 255
- Customs, 22
- Darwin, 9, 75
- Differences between man and animals, 4
- Diseases, venereal, 14
- Disintegration, tendency toward, 179, 264, 265
- Divine right of kings, 165, 275
- Duties, 82, 84, 109, 141
- Duty, sense of, 103
- Educated conscience, 298
- Education, 289, 290

- Edwards family, 39, 295
 Egoism, 254
 or altruism, 223
 Elimination, factors concerned in, 232
 Embryology, human, 2
 Emotions, 3, 219
 England, 174, 175, 220
 Environment, 301
 action of, 287
 Eskimos, 148, 150
 Ethical instinct, 248
 not based on reason, 249
 produces strong nations, 251
 Ethical nature, instinctive, 204
 Ethics, places society above the individual, 261
 sacrifices demanded by, 269
 Eugenics, 11, 12, 324, 326, 338
 Evolution of man, evidence for, 1
 Extermination by warfare, 231

 Family, 82
 customs, 87
 expansion of, 148
 life among animals, 129, 139
 life, forces contributing to, 133
 origin of, 132
 permanence of, 142
 socially inherited, 293
 the unit of natural selection, 142, 225
 Feudalism, 181, 190
 Forces of progress, 310
 producing disintegration, 200
 producing union, 207
 Fossils, 1
 France, 191, 193, 217
 Frederick the Great, 127
 Freedom, 191
 loss of, 182
 French Revolution, 220
 Fueglians, 149

 Garner, 58, 329
 Germans, 175, 235
 Germinal substance, 29
 Gesture language, 57
 Government, 6, 22
 Greece, 213, 219
 Greeks, 128, 171, 184, 213

 Heredity, 9, 29
 general laws of, 10
 social and organic, contrasted, 26
 Higher classes, 243, 245
 Hindus, 236
 Human progress, 317

 Ideals, advance of, 111, 332
 Imitation of a model, 105
 Indians, 128, 210, 232
 Individual, exaltation of, 187
 freedom, 183
 influence of among animals, 312
 among men, 314
 responsibility, 324
 sacrificed to the race, 76, 183, 187
 value, 183, 186, 188, 195, 200
 vs. society, 188
 Individualism, 143, 164, 210
 and centralization, 195
 Individuals as organizing centers, 153
 Infancy, length of, 137
 Inflectional languages, 65
 Instincts, 34, 215
 based on structure, 282
 transferred by organic heredity, 284
 Instinctive actions in animals, 215
 in man, 216
 Intellect vs. instinct, 204
 vs. moral sense, 205
 Intelligence, 34
 develops civilization, 322
 leads to disintegration, 265
 Isolative languages, 65

 Jukes family, 28, 39, 295
 Justice, 88, 89, 271

 Kaiser, 19
 King, a religious head, 157
 Knowledge, 22

 Labor unions, 194, 255
 Lamarkism, 301
 Language, 22, 327
 acquirement of, 49
 building of, 51

- Language developed only in
 - man, 67, 328
 - development of, 64
 - inheritance of, 38
 - of animals, 44
 - of children, 44, 47
 - of savages, 55
 - origin of, 58
 - primitive, 48
 - the foundation of society, 44
 - the result of growth, 50
- Latin races, 213
- Laws, 87
 - origin of, 86
 - controlling evolution, 8
- Length of life, 33
- Lincoln, 19, 314
- Louis XII, 89
- Mammals, societies among, 146
- Man, accomplishments of, 203
- Martyr, 94
- Mathematical genius, 320
- Maxim, 318
- Mental evolution, 3
 - and language, 66, 71
 - vs. physical evolution, 202
- Microorganisms, 227, 242
- Migrations of the Aryans, 234
- Mob action, 218, 221
- Modern nations, formation of, 173
- Mohammedanism, 274
- Monkeys, 58, 97, 180
- Moral codes, inheritance of, 292
 - evolution of, 82
- Moral nature, innate or acquired, 72, 73, 296
- Moral sense, 4, 5, 22, 94, 248
 - among savages, 95, 99
 - and moral codes, 113
 - and social heredity, 121
 - development of, 106
 - inheritance of, 41
 - innate or acquired, 73, 95, 122
 - in primitive family, 96
 - nature of, 94
 - new with man, 73
 - organic or acquired, 294
 - origin of, 95, 118
 - origin of in a child, 104
 - the foundation of social evolution, 267
- Morals and laws, 86
- Mother's love, 79
- Motives in low races, 97, 100
- Müller's "roots," 52
- Mutations, 119, 318
- Napoleon, 193, 314
- Natural forces, explain natural phenomena, 6
- Natural selection, affecting peaceful nations, 238
 - among higher classes, 243
 - among lower classes, 240
 - and the human race, 223, 334
 - develops ethical nations, 334
 - leads to disintegration, 264
 - not necessary for human progress, 308
 - reversal of, 250
- Nature vs. nurture, 11, 304, 337
- Nurture, 304
- Obligations, 83, 91, 100
 - broadening of, 91
 - to one's enemies, 93
- Opportunity vs. license, 199
- Organic and social heredity, summary, 300
- Organic heredity, 26, 37
 - in man, 35, 292
 - its uncertainty, 37
- Organization, 206, 233
 - and individuals, 153
 - foundation of, 207
 - growth of, 150, 178
 - significance of, 126
- Other self, 105, 112
- Panmixia, 251
- Passions, 243
- Patriarchal nations, 159
- Patriarchal system, 156
 - based on the family, 156
 - religious authority of the king, 157
 - weakness of, 160, 161
- Patriotism, 182, 276
- Perceptions, 4
- Permanency of inherited traits, 11
- Persian empire, 160, 213
- Philology, evidence from, 49
- Political parties, 194
- Primitive family, condition of, 137, 140

- Primitive language, 48, 57, 61
 and child language, 61
 Progress social rather than
 organic, 319

 Race characters, change of, 234
 Racial poisons, 15
 Rearing of offspring, 233
 Reason-eminently selfish, 266
 Records of language building,
 52
 Reformation, 143
 Religion the foundation of
 strong government, 273
 function of, 278
 influence of, 157
 universality of, 271
 Religious leaders, 157, 163
 Reproduction, 9
 Reproductive instincts, 76, 78
 Responsibility, 324
 Right and wrong, 87, 94, 97,
 104, 106, 107, 112, 115, 297
 among savages, 98
 Roman Church, 86, 174, 181,
 190, 219, 254, 274
 Romans, 172, 185, 189, 210, 213,
 217, 219, 236
 "Roots" of language, 52, 54
 Royalty, rise of, 191, 255
 Russia, 176

 Sacrifice of present to future,
 262
 demanded by ethics, 270
 in reproduction, 76
 Salmon, 5, 76, 78
 Sanskrit, 51, 52
 Savage races, classification of,
 151
 Scope of social and organic
 heredity, 31
 Selection, action of to-day, 237-
 240, 243
 Sentence words, 56, 59
 Sexual diseases, 14
 Sexual instincts, 134
 Short lives as limiting social
 heredity, 33
 Sitting Bull, 19
 Slavery, 220
 Social attributes, transmission
 of, 40
 evolution, 17, 267

 Social heredity, 24, 25, 26, 37
 altruistic, 330
 and acquired characters, 27
 and environment, 27, 301
 and language, 66, 327
 and organic, contrasted, 26,
 335
 in animals, 31
 in man, 36
 its certainty, 37
 laws of, 26
 leads to altruism, 329
 scope of, 41
 significance of, 29
 Social instincts, 80, 148
 Social life among animals, 81
 Social man, 17, 21, 23
 Social organism, 136
 Socialism, 192, 200, 260
 Societies, formation of, 145
 Society not founded on in-
 telligence, 212
 powers given by, 19
 Starvation, 229, 238
 Struggle for existence in man,
 225, 309
 for the life of others, 79
 for the life of the species, 74,
 79
 of man with man, 230
 with inanimate nature, 227
 with lower animals, 226
 Sympathy, 101
 Syphilis, 15
 Subordination of self, 180

 Teutons, 213
 Tools, 3
 Tribes, 84, 149, 151
 Truce of God, 190

 Uniformity of law, 7
 United States, 175, 194, 238

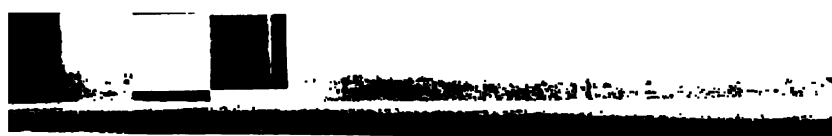
 Variation, 9
 Venereal diseases, 244

 Wallace, 69
 War, 208, 231, 236
 an organizing force, 157
 Washington, 155, 315
 Weismann, 10, 29, 251, 306
 Writing, 22, 53

al









APR 3 1930

